The **future** of **electronic entertainment** issue#91

EDGE®

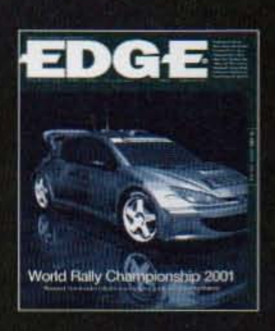
PlayStation | PS2 | N64 | Dreamcast | PC | XBox | GameCube

Dreamcast Daytona USA: exclusive intervi and report from Japan
Previewed: Dark Cloud, Silent Hill 2, Phantasy S Online, and PS2 Goemo
Reviewed: TimeSplitte Metropolis Street Rac
Plus: Piracy now: the tr

World Rally Championship 2001

Revealed: how Evolution Studios is revolutionising rally driving on PlayStation2





Just as the last pages of this issue were being completed, a letter arrived from a reader despairing over the future of electronic entertainment as he saw it. Videogames, he said, exist solely to provide enjoyment, and we play them in order to escape our everyday lives. Why, then, he demanded, do videogame developers insist on crafting experiences which seek to replicate the real world in ever more convincing ways?

This topic is one that attendees of **Edge Live** will be familiar with. At the event it was put to the panel that games bearing at least semi-believable elements taken from the real world are taking over from the purely fantasy-driven efforts that once dominated the industry. Put simply, it was suggested, today's gamers can much more easily relate to hauling a car at tyre-squealing pace around a street corner than they can pushing a bastard sword (+4 vs scarabs) into the belly of an advancing orc in a mist-shrouded swamp.

Would *Driver*, for example, have sold even half as many copies as it did had it been set on Mars in the year 2122? Would *Tony Hawk's Pro Skateboarding* have proved such a hit with mainstream gamers were its environments not based loosely on real-life locales? Would it have been embraced so fondly, by so many, if its playing areas were negotiated by hoverboard? The simple answer is no.

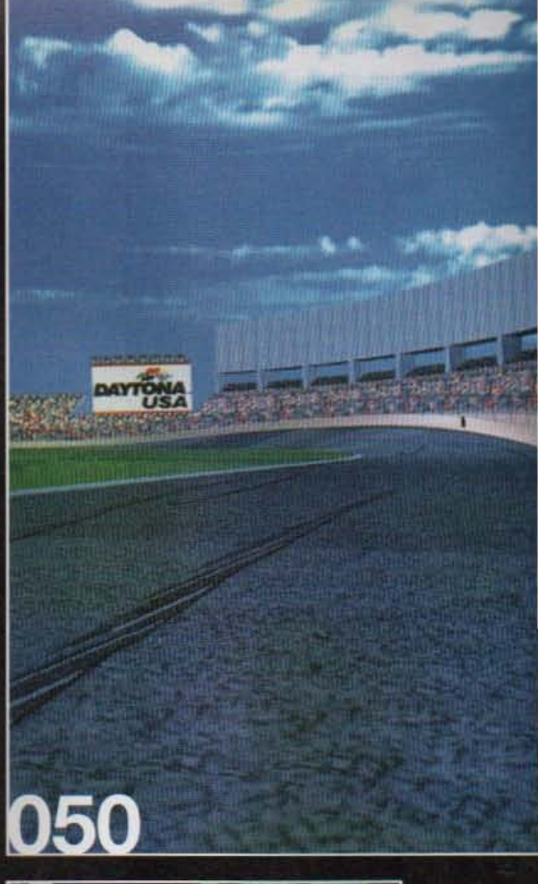
Evolution Studios, the developer of this month's cover game, appears astutely aware of this, and is working towards building an experience whose appearance at a passing glance will be indiscernible from real-life rally car coverage on Eurosport. The developer has set itself some preposterous goals, but from what **Edge** has seen (see p56), it has at least built a technology set that seems to push PlayStation2 harder than anything else to date.

If Evolution's goals are reached, clearly *World Rally Championship 2001* will widen the gulf that exists between the real and the imagined, leaving at least one **Edge** reader in a state of further despair. However, looking at some of the other games that feature this month – notably PC releases *Baldur's Gate II*, *Sacrifice* and *Aiken's Artefact* – it's clear that goblins, demons and imps aren't ready to keel over and die just yet. It will be fascinating, though, to follow their evolution outside of the realm of PC gaming.



Features













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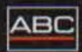
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Software: QuarkXPress, Adobe *Photoshop*, Macromedia *FreeHand*, and Nisus *Writer* **Typography:** (Adobe®) **Helvetica** Ultra light, Thin, Light, **Roman, Medium, Bold**



frontend

News and views from e-entertainment's cutting edge



Autumn TGS paints bleak landscape

Second event in Japanese calendar offers little indication of a videogame industry moving out of its cyclical downturn, with few high points and a weak DC showing

Photography: **Hiroki Izumi**

Like ECTS before it, the Autumn 2000 Tokyo Game Show was characterised by worrying signs of a difficult transitional market, albeit tempered by the willingness of developers to seize new market opportunities engendered by new – particularly wireless – technologies. The event, which took place from September 22-24 at the Makuhari Messe convention centre, was the ninth in the show's history, though there were signs that from next year the exhibition may have to restrict itself to a single outing to maintain its integrity as a showcase event for the industry.

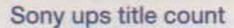


Although attendance was up from the spring event, last year's autumn Tokyo Game Show attracted more visitors. Alarmingly, this was manifest in the empty spaces around the floor

A show apart

The Tokyo Game Show is very different in character to both E3 and ECTS, not least because it is a twice-yearly occurrence. Criterion's **Alex Ward**, who attended the event this year, puts it succinctly: "E3 is about suits and meetings, ECTS is about 16-year-old 'company directors', kids from the local Dixons, and stuff you saw at E3. The Tokyo Game Show is just about the games. Hardly any meeting rooms or heavy corporate vibe, just about the games." Nevertheless, there was a certain amount of déjà vu this autumn. Most obviously this was because there was a distinguished roster of companies electing not to show. Despite having dominated three successive game events, Sega was at the top of this list, but equally disappointing for the public attending the event was the absence of both SquareSoft and SNK. While Sega chose instead to focus on the preceding JAMMA exhibition, the rumours on the show floor were that Square's decision not to attend was attributable to discussions between the company and Microsoft. Another, more worrying, possible explanation for both Square and SNK is that the rising cost of creating commercially successful games in a market that offers low returns is having a detrimental effect on the production of future titles.

Unsurprisingly, given Sega's absence, Dreamcast was overshadowed by Sony's hardware in terms of the number of software titles that were on show at the exhibition. Capcom, for example, did not demonstrate any new Dreamcast software, leaving Sammy Corporation to carry the torch. But while *Guilty Gear X* was notable for attracting significant crowds over the three days, with more than 3,000 lucky attendees receiving a demo, this was just one of a paltry number of products displayed on the platform. In contrast to the 16 games demonstrated on the Dreamcast, PSone and PlayStation2 could boast 159 titles between them.



Sony ups title count

Compared to the Tokyo Game Show of the spring, there were numerous new games on Sony's hardware, but questions concerning the quality of these titles remain, to the disappointment of those attending the exhibition. Simply put, the general standard of PlayStation2 fare continues to fall short of the much-vaunted capabilities of this machine, with Konami and SCEI still the companies coming closest to fulfilling its immense potential. Surprisingly, *Metal Gear Solid 2* was relegated to a single 17-inch monitor deep within the recesses of Konami's booth, and failed to precipitate the fervour witnessed at E3. Perhaps this is because the release of

Given Sega's absence, the Dreamcast was overshadowed by Sony's hardware in terms of the number of software titles that were on show



Those attending the Tokyo Game Show were treated to the new X-Box logo, which was emblazoned all over the entrance. Curiously, Microsoft had little to show inside the event

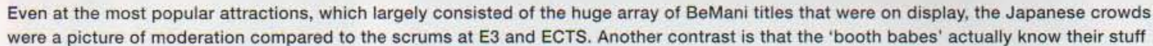
Nowhere is the difference in Japanese and European tastes more apparent than the gaudy costumes and colourful stage events at the Tokyo Game Show, which are at odds with the comparatively sober presentations made during ECTS










Even at the most popular attractions, which largely consisted of the huge array of BeMani titles that were on display, the Japanese crowds were a picture of moderation compared to the scrums at E3 and ECTS. Another contrast is that the 'booth babes' actually know their stuff







"It was strange to see the big Microsoft X-Box logo plastered all over Makuhari Messe. Naturally, they didn't show anything"

the DVD trailer had already whetted the appetite of Japanese gamers, but it could also simply reflect the difference in regional tastes, with most of the company's stand giving way to Bemani mania. Titles like *Zone Of The Enders* and *Shadow of Destiny* were playable, alongside a video of *Silent Hill 2*, but stage events focused on the rhythm-action portfolio.

SCEI, meanwhile, only had four playable games. *Gran Turismo 2000* lived up to all expectations, while the others – *Dark Cloud*, *Sky Gunner* and *Crash Bandicoot Carnival* (PSone) – were, if anything, unsatisfactory. *Dark Cloud suffered* from comparisons to *Ocarina of Time*, and the interesting concept underlying *Sky Gunner* was undermined by antialiasing problems. Other companies touting PlayStation wares included Namco, which showed off *Seven*, *Moto GP* and *Klonoa 2*. Of these, the latter made the biggest impression with the crowds. Capcom announced that *Onimusha* would once again be delayed, which is difficult to understand regarding what is essentially a good-looking PSone title that looks a little dated next to likes of *Code Veronica*. Intriguingly, Taito announced a speech-recognition controller and a couple of games based on the technology, including *The Greatest Striker*, which gives players the chance to really immerse themselves in the world of football management by shouting from the sidelines.

PS2 peripherals

This wasn't the only peripheral on show. In fact there were a number of multimedia add-ons for the console exhibited by several different manufacturers. Sunsoft had a keyboard, mouse, and modem available at its booth, while Irem presented a portable TFT colour screen with TV tuner. A CCD camera was also available to clip on to the Dual Shock 2. SCEI brought along its own printer and several digital cameras. But with the high cost of these items, the diversified focus of PlayStation2 remains a moot point.

Of the Game Boy Advance selection at the show, the titles that stood out were Capcom's *Rockman EXE* (aka *Megaman*) and Konami's *Dracula* (aka *Castlevania*). But one of the biggest stories of the show was the presence of Microsoft. "It was strange to see the big Microsoft X-Box logo plastered all over Makuhari Messe," relates Ward.







Of the PlayStation2 titles on show, *GT3* looked continued to look impressive, while Konami curiously relegated *Metal Gear Solid 2* to a single screen to make way for the company's large BeMani roster, which appeared to meet a more rapturous reception at the event





Although the Tokyo Game Show currently takes place twice a year, the common perception at this year's event was that the organisers may have to rethink such a strategy if scenes like the one above, of a show floor largely devoid of attendees, are to be avoided next year





Several multimedia add-ons for the PlayStation2 were displayed by Sony, as well as a number of thirdparties. These included an intriguing digital camera, which was designed to be attached to the unit's Dual Shock controller (bottom)

"Naturally, they didn't show anything; all they did was hand out some cool X-Box bags, but to some that was enough." The entrance was indeed festooned with X-Box banners and flags, but the size of Microsoft's booth was small to say the least, with no videos or demos. Many attendees were therefore left wondering exactly what the purpose was for Microsoft's almost hyperbolic presence, but it is clear that such a strategy is essential if X-Box is going to crack the Japanese market and win over those far-eastern developers who haven't yet declared their support for the machine.

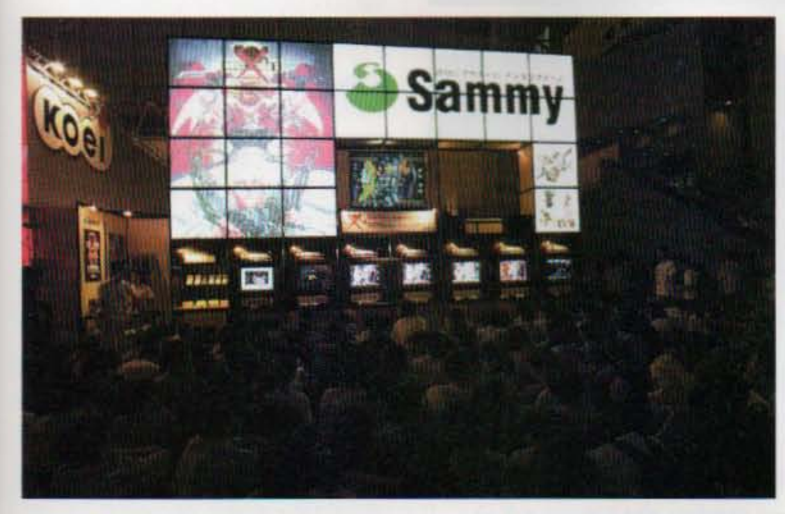
Wireless support

Away from console development many companies were seizing the wireless opportunity with both hands. With iMode having achieved a more pronounced take-up than WAP has managed in Europe, this market has reached a greater level of maturity in Japan. Consequently, some established developers are switching entirely to development for mobile phones and a large percentage of stallholders had some form of wireless application on show. Hudson's booth, for example, was almost entirely given over to iMode.

An industry hit hard

There was no avoiding the fact, though, that the videogame industry has been hit hard both by the general economic climate in Japan and by the diminishing returns of a market that has yet to hit its next-generation stride. Although there were more visitors than for the spring 2000 Tokyo Game Show, attendance was actually slightly down on the same event last year. With rumours proliferating the show floor of companies in trouble or being sold, sales continue to fall below expectation. There are diminishing numbers of small and medium development companies attending successive Tokyo Game Shows, culminating this year in empty floor space.

Cutting down to one event a year may help the exhibition going forward, but there are larger issues involved, and the industry in the west has yet to consider the implications of a prolonged downturn due to the continued poor performance of the Japanese economy.



Sammy Corporation was one of the developers to support Dreamcast, attracting hordes of visitors with *Guilty Gear X*, one of scant few titles on display for Sega's 128bit platform



Like ECTS before it, wireless gaming applications were ubiquitous at the show

Microsoft unveils X-Box support explosion

Microsoft announces the names of the 156 development companies it believes will help its console hit the number one spot, settles on X-Box as the official format title, and presents the brand logo

Amid much fanfare, and via a live satellite link up between San Francisco, London and Tokyo, Microsoft announced a list of 156 developers that have declared their intent to work on X-Box games. The move comes hot on the heels of the company's announcement at ECTS that 18 developers have signed up to develop exclusive content for the console. The opportunity was also taken to unveil a logo for the machine, and to confirm the fact that there are no plans to change its name prior to the platform's release next year.

This may prove problematic, though, as reports have surfaced that of the four trademark filings that Microsoft has made to the US Patent and Trademark Office, two appear to have been taken. A software company from Florida, named Xbox Technologies, trades on the Nasdaq exchange under the ticker symbol XBOX, and if the differences between the two companies are not resolved by November 8, the case may have to be settled by the Trademark Trial and Appeal Board.

Despite this hiccup, Microsoft is proving itself adept at keeping X-Box at the forefront of people's minds. There was nothing entirely unexpected at the press conference – even the logo had appeared on the Internet in advance of the official unveiling – but the event is yet another example of the seriousness with which it takes the task of breaking into Sony's console hegemony. The announcement came a few hours before the Tokyo Game Show, and arrived in the midst of reports that Sony would be shipping only half of the previously announced million PlayStation2 units for its US launch.



Microsoft's J Allard appeared alongside John O'Rourke and, via satellite, Robbie Bach to unveil the sparkly new X-Box logo (left)

X-Box: the story so far

The evening (London time) was assiduously stage managed, kicking off with a brief account of the history of X-Box, leading up to the appearance of Bill Gates at the Game Developers Conference. Once again, director of marketing John O'Rourke was keen to emphasise the hardcore gaming backgrounds of the individuals who made it happen, before handing over to Robbie Bach, senior vice president of the Games Division and chief X-Box officer, who was speaking from Tokyo.

He outlined reasons to get excited about X-Box and the types of games that can be expected when the platform launches. In addition to drawing attention to unmatched technical specifications, he pointedly highlighted the ease with which games can



The console design has been finalised, but Microsoft still refuses to show it. When it does hit the streets it will be accompanied by an official magazine produced by Future Publishing

roster reads something like a who's who of videogame development, with the likes of Argonaut, Capcom, Konami, Eidos and Namco all featured (see boxout), there were one or two notable absences. Square and EA didn't figure, for example, though it was later rumoured at the Tokyo Game Show that this is soon to be rectified. Contrary to some reports that surfaced later on the Internet, none of Sega's development divisions have yet announced their support for X-Box, though it is believed that Microsoft has made dev kits available to them free of charge in a bid to woo their support.

The highlight of the evening was undoubtedly the rolling demo of titles that are set to appear on X-Box, which was again demonstrated after a stage-managed attempt at humour. Allard recounted his – no doubt spurious – efforts to persuade O'Rourke to allow this footage to be shown in place of yet more technical demos. Some credence was given to this anecdote, however, later in the week, when several Web sites were asked to take down recordings of

be developed for the machine, no doubt for the benefit of those developers – particularly Japanese – who have been rumoured to be growing disillusioned with Sony's hardware and increasingly favourable towards Nintendo.

Developers listed

With that, the podium was given to Allard, who began to read the names of X-Box developers from a small sheet of paper, before an obviously well-rehearsed joke saw him declare that it was the wrong list. Cue Microsoft assistant stage left with a huge scroll, from which Allard continued to read the rest of the 156 companies. Although the

Although the developer roster reads like a who's who of videogame development, there were one or two notable absences













Microsoft's rolling X-Box demo included (clockwise from top left) *Colin McRae Rally 2.0*, *Star Trek: Voyager – Elite Force*, *Ultimate Fighting Championship*, *Silent Hill 2*, *Tony Hawk's Pro Skater 2*, and *Ready 2 Rumble Boxing: Round 2*. All are shown here running on other platforms

X-Box developers

Acclaim Entertainment, Inc.
Activision, Inc.
Aki Corp.
Alfa System Co., Ltd.
ALTAR interactive
Anchor Inc.
Angel Studios, Inc.
ARC SYSTEM WORKS CO., LTD.
Argonaut Games plc
ARIKA CO., LTD.
ARTDINK CORPORATION
ARTOON CO., LTD.
Ask Co., Ltd.
ATLUS CO., LTD.
Attention to Detail Ltd.
Awesome Developments Ltd.
bam! entertainment
BANDAI CO., LTD.
Barking Dog Studios, Ltd.
Bethesda Softworks Inc.
BioWare Corp.
Blue Byte Software, Inc.
Blue Shift, Inc.
BUNKASHA PUBLISHING CO., LTD.
CAPCOM CO., LTD.
Charybdis Limited
CLIMAX Ltd. Co.
Conspiracy Entertainment Corporation
Core Design Ltd.
Crave Entertainment, Inc.
Criterion Software Ltd.
Cryo
Crystal Dynamics Inc.
DATAM POLYSTAR CO., LTD.
Deep Red Games Ltd.
DigitalWare Inc.
DMA Design Ltd.
DreamCatcher
DreamForge Intertainment, Inc.
DWANGO Co., Ltd.
Dynamix
Edge of Reality, Inc.
Eidos interactive Ltd
Empire Interactive
EON Digital Entertainment
Epic Games
Escape Factory, Ltd.
Fox Interactive
From Software (Japan), Inc.
Funcom
Gameplay
Gathering of Developers
GENKI Co., Ltd.
Global A Entertainment, Inc.
h.a.n.d. inc.
H.I.C. Co., Ltd.
Hasbro Interactive
Havas Interactive
HEADLOCK INC.
Heavy Iron Studios
Housemarque
HUDSON SOFT CO., LTD.
Humongous Entertainment, Inc.
id Software, Inc.
I-Imagine Interactive
image corporation
Imagineer Co., Ltd.
Incredible Technologies, Inc.
Infogrames
Interplay Entertainment Corp.
JALECO LTD.
Kaboom Studios Limited
Kalisto Entertainment
KEMCO / Kotobuki System Co., Ltd.
Kodiak Interactive Software Studios

continued...





Other titles expected to appear on X-Box include *Max Payne* and *World Sports Cars*

Microsoft's explicitly global focus is significant. The massive recognition of the console is an impressive wake-up call for Sony and Nintendo

the demo that they had made available for download – ostensibly because the titles shown are too early in development for public consumption. The video consisted of several titles that have already appeared on other platforms, along with one or two that prompted enough speculation to furnish news Web sites with content for weeks. Titles like *Star Trek: Voyager – Elite Force* were little different from their PC incarnations, but there were also intriguing glimpses like the one that resembled a Pink Panther-styled *Metal Gear Solid*. Until any further announcements are made, speculation is of little use, though.

Logo inaugurated

The final component of the presentation was the inauguration of the X-Box logo. According to the blurb, the green cross was 'designed to exude three key messages'. Not 'Stop, Look, Listen', as might be expected, but actually, 'powerful technology, an exhilarating experience and fresh, inventive gameplay'. While it is true that these are laudable qualities in any console, it requires a leap of ad executive-like proportions to ascertain exactly how these qualities are expressed by the logo, which appears to have met with a mixed reception – though not from the US contingent of reporters, who were characteristically more vociferously enthusiastic than their European counterparts.

The most significant aspect of the event was Microsoft's explicitly global focus. The massive recognition of the embryonic console far in advance of its mooted release date has come from all quarters of the globe, and is an impressive wake-up call for Sony and Nintendo. Microsoft is clearly intent on doing its utmost to upset the established console apple cart.

continued...

KOEI Co., Ltd.
KONAMI CORPORATION
KOOL KIZZ AMUSEMENT WORKS
Kuju Entertainment
Legend Entertainment Company
LightWeight Co., Ltd.
Lost Boys Interactive
Majesco, Inc.
Mass Media, Inc.
MAX-INTERNATIONAL INC.
MGM Interactive, a unit of Metro-Goldwyn-Mayer Inc.
Microids
Midas Interactive Entertainment
Midway Home Entertainment Inc.
Monolith Productions, Inc.
Monster Games, Inc.
Mythos Games Ltd.
NAGI CORPORATION
NAMCO LIMITED
Nest Corporation
Neversoft Entertainment
Nihilistic Software, Inc.
NIHON CREATE INC.
NovaLogic, Inc.
OVER WORK'S Inc.
Pacific Coast Power & Light Co.
PANTHER SOFTWARE, INC.
Papyrus
Paradigm Studios
Pipe Dream Interactive
Qube
RAC
Radical Entertainment
Rage
Raven Software
Red Storm Entertainment, Inc.
Reflections Interactive
Ripcord Games, LLC
Riverhillsoft Inc.
Rockstar Games
Saffire Corporation
SCI Entertainment Group PLC
SHOEISHA Co., Ltd.
Sierra
Silicon Dreams Studio Ltd.
Simon & Schuster Interactive
SKY.Co., Ltd.
SouthPeak Interactive
Spike Co., Ltd.
Starbreeze Studios
T&E SOFT, Inc.
TAITO CORPORATION
TAKARA CO., LTD.
Take-Two Interactive Software, Inc.
TAKUYO KOUGYO CO., Ltd.
TDK mediactive, Inc.
TECMO, LTD.
TELENET JAPAN CO., LTD.
Terminal Reality
The Codemasters Software Company Ltd.
The Collective, Inc.
The LEGO Company A/S
The Pitbull Syndicate
The Whole Experience, Inc.
THQ
Titus
TopWare Interactive AG
Treasure, Inc.
Ubi Soft Entertainment
Valve, LLC
Victor Interactive Software Inc.
VIDEO SYSTEM Co., Ltd.
Virgin Interactive
VIS entertainment plc
Volition, Inc.
Warthog PLC
XeNN inc.
YAGER Development
Yuki Enterprise Inc.
Zono, Inc.

industryopinion

How is the industry preparing for the X-Box launch?

"Climax is one of only two UK developers selected by Microsoft to work on X-Box titles for their own label (the other being Lionhead Satellites), and because of that we have more experience with the system than just about anyone outside of Microsoft themselves.

The machine is absolutely awesome in every respect and it should really be thought of as a future-generation console, not just another next-generation machine. The graphics performance is in the region of three times the nearest competitor, and the integral hard disk and broadband capabilities mean that we can now create games that we could not have even dreamt of before. The X-Box will allow Climax's game designers to focus on the art of creating games without having to wrestle with arcane technology.

Nintendo's GameCube is young-skewed, and will have all the great Nintendo and Rare games on it, so they will have their own profitable niche; the X-Box is targeted at 16-to-24-year-old males, which puts it head-to-head with the PlayStation2. The X-Box launch is over a year away now, so Sony has a useful head start, but they will have to really make good use of the time if they are to stay ahead of the big M"

Karl Jeffrey, CEO and president of Climax Group

"The console market is continuing to shift as price changes, announcements and launches take place. Making a call on the final outcome remains a real challenge. This is how I see it at the moment. Dreamcast is looking pretty good for games, and with the recent price cuts and aggressive online strategy, Sega are making something of a comeback. Their real strength is that many of their games look as good as or better than PS2, and at a better price.

However, with all this, I don't see them standing up to Sony next year; they might have a good Christmas, though. GameCube's position is still pretty unclear. A fully connected and semi-portable games console with specs a bit above Dreamcast is what it looks like being.

My gut feeling is that Nintendo will continue to be successful, but not make major inroads into the mainstream console space. Certainly Nintendo aren't showing any signs of changing their basic business model for their coming console. So, the battle for the mainstream console space is between X-Box and PlayStation2, and for me at the moment it's just too close to call. What all this means is that at the moment we're dividing our resources fairly evenly between the two, probably doing a couple of games on each at any one time."

Julian Davis, technical director at Kuju Entertainment

"Take Two aims to maintain balanced support for all the gaming platforms. We are offering great titles at the launch of the PS2 and expect to do the same for the launch of X-Box. If anyone has a chance at offering a credible alternative, Microsoft have, and we will be there with them."

Simon Little, business affairs director, Take Two

"As part of the current strategy having 65-plus next-generation titles within in-house development, Ubi Soft have plans to/are currently developing 13 titles for X-Box, including products associated with the *Rayman* and *Rainbow Six* brands. This is a dedicated publishing commitment to the console, not just 'dipping a toe in'. To illustrate this, around two thirds of games published under the Ubi Soft name are developed in-house, by Ubi Studios, throughout 12 different countries. Of this number, approximately ten per cent of total development resources is devoted to X-Box projects. Of course, this may change within the lifecycle of the console itself."

Rob Cooper, managing director (Northern Europe, Australasia & Export), Ubi Soft Entertainment

Coin-op technology debuts at JAMMA

Sega unveils Naomi 2 and Namco presents System 246, but the future looks bleak, with a seismic demographic shift and increased home gaming limiting profits

Photography: **Hiroki Izumi**



The highlight of the show was, without doubt, Sega's announcement of the Naomi 2 board, which almost made up for a poor showing at the Tokyo Game Show two days later. Nevertheless, the general tone of the show was one that reflected the currently difficult arcade climate

Directly in contrast to the Tokyo Game Show, the 38th JAMMA coin-op expo, which took place at the Tokyo International Exhibition Centre from September 21-23, was dominated by Sega. The company's announcement regarding its new Naomi 2 arcade architecture more than compensated for the poor Dreamcast turnout two days later, and overshadowed news of Namco's System 246 board. Nevertheless, the general tone of the show was not entirely optimistic. The arcade sector continues to face a difficult time in the face of competition from other devices for the leisure time of consumers. Unlike the broader videogame industry, it cannot take solace from the fact that it is merely undergoing a downswing in a transitional market.

Sega's arcade success

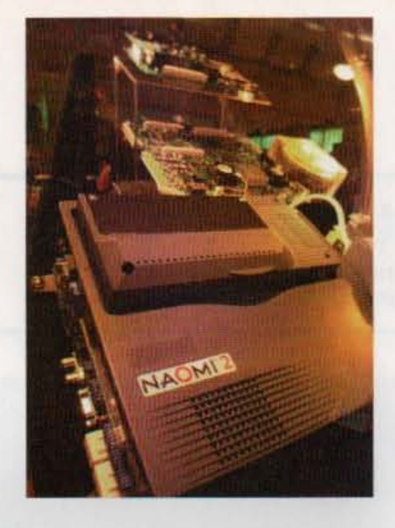
Ironically, the poor commercial performance of the Dreamcast in Japan has allowed Sega the freedom to reassert its traditional strength in the arcade market. The company's new technology is far in advance of the previous Naomi board, marking a return to a technical progression interrupted after Model 3. While this may rule out the option of easy ports for the Dreamcast console, it also removes the constraints that hampered the development of groundbreaking titles on the old Naomi.

While this was a reasonable solution to an underperforming arcade market and provided a ready source of well-known titles for the console, it also proved an obstacle to the ambitious arcade titles that typified Sega's approach. Yu Suzuki's *Ferrari*

Ironically, the poor commercial performance of the Dreamcast in Japan has allowed Sega the freedom to reassert itself in the arcade market



Not to be outdone by Sega, Namco also announced upgraded arcade architecture in the form of the PlayStation2-based System 246. Of the games shown on the two boards, though, the crowds seemed more impressed by Sega's product, and the news that *Virtua Fighter* and *Virtua Striker* updates are in development





Naomi 2 is a cost-effective, technologically sophisticated piece of hardware, capable of displaying ten million polygons per second

355, for example, required four boards, making it expensive to manufacture, while the Hikaru board was costly and handicapped by being difficult to code. By contrast, Naomi 2 is a cost-effective and technologically sophisticated piece of hardware, capable of displaying up to ten million polygons per second – several times the power of its predecessor. Despite the lack of actual game footage running on the machine, it also proved popular among show goers. *Club Kart* and *Wild Riders* both looked impressive, despite being shown on a low-quality screen, and news that both *Virtua Striker 3* and *Virtua Fighter X* are being developed was enough to whet the appetite of the crowds.

Namco shows its face

Namco also made attempted to woo attendees with new arcade technology. The company's System 246 board is based on PlayStation2 architecture, and is intended to revive the success the two companies had with their System 11 collaboration. Unfortunately for Namco and Sony, it met with a less rapturous reception than Naomi 2. The first title to be developed by Namco for its new hardware is *Ridge Racer V Arcade Battle*, based on the console title, but the results are not entirely convincing. In its favour, though, the system is based on DVD-ROM storage, which will make replacement content cheaper to implement – a crucial factor given the low returns of the current arcade climate.

Konami dances on

Elsewhere at the show, Konami concentrated much of its efforts on Bemani titles, unveiling six new titles including *Dancing Stage Disney Tunes*. Although this market has now reached saturation point, with sales having decreased for some time, Konami remains a strong player. Perhaps the most exciting offering from the company was the innovative title *Shinjuku Keisatsukan*, which combines Bemani-style elements within the context of a lightgun game. The cabinet is equipped with motion sensors à la *Dancemania*, but the player is also given a gun. The game places the player in the role of a policeman fighting organised crime in Shinjuku, which must be done not only by shooting opponents, but also by dodging bullets and hiding behind walls and other obstacles. Although the graphics aren't strong, the innovative gameplay makes up for it.

Capcom also showed off several products based on original Naomi technology, but nothing really shone. *Rival Schools 2*, *1944*, *Giga Wing 2* and *Gun Spike* were all reasonable titles, but almost uniformly suffered from weak visuals.

Significantly, Capcom and Jaleco each devoted a large part of their respective booths to mobile phone devices. Both companies already derive substantial revenue from the lucrative melody download business, but a new service offers the potential to extend this market. Cabinets resembling a cross between a conventional coin-op and a photo booth allow users to record images of themselves, which can be downloaded to mobile phones.

But such developments are, in fact, an indication of the troubles facing conventional arcade manufacturers. While there is a justifiable degree of optimism in the home videogame industry, the future faced by producers of arcade hardware is less certain. While showgoers could wander through a section of JAMMA devoted to the most famous titles from the illustrious history of coin-ops, Yoshihito Kikahara, president of



Away from the competition between Sega and Namco over who could provide the optimum blend of technology and cost effectiveness in their arcade boards, there was ample evidence to support the claims of Yoshihito Kikahara, that well designed arcade cabinets, kitted out with the full range of peripherals, simply offer a better experience than a home console.

Naomi 2 vs System 246

Naomi 2:
CPU: SH4 RISC 200 Mhz, 128bit graphic engine.
3D engine: PowerVR2
VRAM: 32Mb
Media: JAMMA ROM (JVS) & GD-ROM
Geometry: 10 million polygons per second
Sound: Super Intelligent Sound Processor, 32bit RISC (64 channels ADPCM)
RAM: 32Mb
Modem Data Memory: 32Mb
Colours: 1,677 million
Rendering: 2,000 Mpixels per second
Supported Effects: Bump mapping, fog, alpha-blending, mip mapping, tri-linear filtering, anti-aliasing, environment mapping and specular effects.
Extras: Two-screen management, RS232C, optical fibre connection for network

System 246
CPU: Emotion Engine 128bit, 294.912Mhz
3D engine: Graphic synthesizer, 147.456Mhz
VRAM: 4Mb
Media: hard drive, CD-ROM and DVD-ROM
Sound: SPU2, 48 channel and library, 36.864Mhz
Sound Memory: 2Mb
RAM: 32Mb (Direct RDRAM)
IOP Memory: 2Mb
Compatibility : PS2 and PS.





JAMMA, outlined his fears for the industry.

He identified three major obstacles that need to be overcome for a resurgence to take place. The threat posed by the popularity of mobile phones in Japan is not confined to just the arcade sector, but it is one that has had pronounced effects. NTT DoCoMo's iMode phones in particular have proven to be a viable competitor for the leisure time of young people, with nearly 15 million units sold since their introduction two years ago. With communications companies investing heavily, and handsets being sold cheaply, more than half of the Japanese population is said to have more than one phone, which rightly troubles Kikahara-san.

A shrinking market

A changing demographic is another thorn in the side of the industry that alarms Kikahara-san. Ten years ago, when arcades were in their heyday, there were at least 25 million youths in Japan, a large section of whom frequented arcades. With only around 12 million or so today, the arcade sector has over-reached itself and is competing for their leisure time with a much more diverse set of entertainment devices.

The final factor that Kikahara-san pointed to is the impact of home consoles, and particularly the manner in which hardware manufacturers see arcades as merely a breeding ground for console hits. He draws attention to hardware like the ST-V Titan, the System 11 and 12 boards as well as the original Naomi board and Namco's new System 246. With such hardware being developed for console compatibility, he argues that gamers are no longer drawn to arcades and the quality of product suffered as a result. As he points out, it is illegal in Japan to put a console inside a cabinet.

Kikahara-san is not entirely pessimistic, though, highlighting several measures that must be adopted by companies to restore the prominence of the arcade in the eyes of gamers. Sega's Naomi 2 board, he argues, is an example of one such measure. Whereas Capcom and Jaleco are both attempting to integrate coin-ops with other leisure devices, Kikahara-san argues that the real solution is to maintain the specificity of the arcade. Naomi 2 clearly marks a distinction between arcade and console hardware, making it difficult to emulate the arcade experience at home, but imaginative cabinet design can also provide a unique experience. And with relatively cost-effective board technology and the advent of networking technology, there may be greater scope in future for adventurous designs. Indeed, Kikahara-san is also confident about the opportunities provided by developments like Sega's Net@ networks, arguing that it will invigorate game design, as well as allowing game designers to share information more readily.

So, although JAMMA was in many respects something of a disappointment, there was enough evidence to support a relatively optimistic view of the future of arcade gaming.



It would appear that they start them young in Japan. This little chap is too young to remember the joys of the original *Space Invaders* or *Telepong*, though the sight of Hang On was a clear draw







The section of the show devoted to the glory days of coin-op gaming served only to highlight the difficult arcade market

Interactive BAFTAs thrive

Phill Jupitus hosts 2000 event, which enjoyed a record number of entrants from sectors spanning the whole of the industry





This year's nominations range from *ChuChu Rocket* (top) to *Deus Ex* (above)

The BAFTA Interactive Entertainment Awards ceremony, in association with leading e-Business services company ICL, was scheduled to take place on October 26 at London's Royal Lancaster Hotel. Now in its third year, the event – for which **Edge** is a media partner – was set to be hosted by Phill Jupitus of 'Never Mind the Buzzcocks' fame, who joined an already illustrious roster of previous presenters which includes the likes of Stephen Fry.

Despite the well-documented difficulties presented by a transitional market in the videogame industry, this year saw a record number of nominees, explains **Sue Thexton**, chair of the BAFTA Interactive Entertainment Committee. "We have been overwhelmed by the sheer number of entries, which have scaled new heights of quality and maturity. The entries are more diverse than ever, representing the full range of platforms – from art installations, WAP, CD-ROM and DVDs, through to games, Web sites and digital television." While the variety of entries increased since last year, it also worth noting that the number actually doubled and that there was a greater international representation.

Edge will be featuring a full report on the results of the event in next month's issue, but at the time of going to press nominees were hoping to join the ranks of some



Croft and Jupitus: identical body masses, arranged in a slightly different way

distinguished forebears in winning an award that is fast acquiring the respect of the interactive media industry. Previous winners include Nintendo, which won several awards for *Legend of Zelda: Ocarina of Time*, SCEE for *Wipeout 3*, and BBC News Online for its Web site.

Many of this year's nominees will be familiar to **Edge** readers. Blast Theory, responsible for the art installation Desert Rain (**E**87), was nominated in the interactive arts category, and BBC News Online was once again competing with FT.com in the news category. Of most interest to gamers will be Team Soho's *This is Football* in the sports category, and the games categories (see boxout). NGame's *Merchant Princes* was the only WAP title that was nominated. Featuring a persistent world set in Medieval Europe, this title competed with Sega and Nintendo in the mobile or networked games category.

Judging the awards was a committee of 16 members drawn from within the videogame industry and from a variety of multimedia backgrounds. Best known to **Edge** readers will be Peter Molyneux of Lionhead, Argonaut's Jez San and Grant Dean from Eidos, but the committee included Channel 4's Sophie Walpole, EMI's Fionnuala Duggan, and Anglia Polytechnic's Stephen Heppel. Expect a full breakdown of their cogitations and ruminations in the next issue of **Edge**.

"We have been overwhelmed by the sheer number of entries, which have scaled new heights of quality, maturity, and diversity"

Those nominations in full

Although nominations for the Interactive Entertainment Awards encompassed a huge variety of interactive media, listed below are the various games categories.

Games – Mobile or Networked	Developer	Publisher
ChuChu Rocket (Dreamcast)	Sonic Team	Sega
Merchant Princes (WAP)	nGame	TBA
Pokémon Yellow (Game Boy)	Nintendo	Nintendo
Games – PC		
Deus Ex	Ion Storm	Eidos Interactive
Ground Control	Massive Entertainment	Sierra Studios
Shogun Total War	Creative Assembly	Dreamtime Interactive/EA
Games – Console		
Medievil II (PS)	Team Cambridge	SCEE
Ready 2 Rumble Boxing: Round 2 (PS2)	Midway	Midway
TimeSplitters (PS2)	Free Radical Design	Eidos Interactive

GamePark's Game Boy

By the time Nintendo launches the Game Boy Advance next year, Korean firm GamePark will have already released its own colour handheld game unit with a comparable set of specifications. Set to be released in Asia before the end of this year, the GP32 will feature a 32bit CPU, 8Mb of SDRAM, 8Mb ROM and a colour STN-LCD screen capable of resolutions up to a maximum of 320x240 pixels. Seven titles will be available at launch, ranging from *Kisi Kimi*, a puzzle game, to *Little Wizard*, which seems to be a blend of 2D beat 'em up and *Pokémon*-style games. The company currently havs no plans to release the unit in Europe.









Three of the initial seven titles for the GP32 are shown above: *Dungeon & Guarder* (top), *Little Wizard* (centre) and *Highmoss* (above)



Cannes I kick it?

Prove you can through the New Talent competition at the Milia 2001 event

Milia 2001: the World's Interactive Content Marketplace, which takes place from February 10-14 at the Palais des Festivals in Cannes, will feature its New Talent competition for the seventh year running. The event provides an opportunity for the brightest new undiscovered interactive content developers, designers and researchers from some of the world's leading universities and institutes to occupy a stand in the New Talent Pavilion, an area dedicated to showcasing the latest research projects and experimental ideas.

The competition, supported by **Edge** and organised with the Japanese Association AMD (Association of Media in Digital) and Ngapartji, is open to all interactive media and games university courses and research facilities from around the world, with a limit of one project per institute. Projects must be submitted by December 1, and a six-member panel will determine 15 successful applicants later that month. Winners will be notified in January. Milia will cover the entrance, travel and hotel fees for selected project representatives, and the entrance fees of five other students and the course tutor.

Given the 7,000 industry delegates that attended last year's event, the New Talent competition will provide a unique opportunity for students to develop their knowledge of the interactive market and new technologies while promoting their own course and research. It will also supply the chance to compare course content with other students and institutes, and to build up a portfolio of industry contacts.



For more information and entry conditions, interested parties should contact Reed Midem Organisation's Samuel Socquet-Juglard who is organising the competition via email at newtalent@reedmidem.com, by fax, on +33 1 41 90 44 70, or telephone, on +33 1 41 90 44 62

Telewest and VIS strike game deal

VIS Entertainment signs £2 million agreement with the country's second largest cable developer to develop and commission content for broadband and iDTV markets



Tom Cotter, Telewest's games content manager (above), sees the arrangement with VIS as an important component of the company's strategy of generating compelling content

With analysts bullish about the future of both online gaming and Interactive Digital Television (iDTV), Telewest Communications and VIS entertainment have announced a partnership designed to take advantage of the opportunities provided by new, high-speed content delivery technologies.

The deal sees the two companies establish a joint venture, called VIS iTV, to develop and commission gaming content for the broadband and iDTV markets, with each providing an initial investment of up to £2 million to fund the costs of setting up the enterprise and producing the first product. Under the terms of the agreement, Telewest will have a period of exclusive access to any content developed by the new company or commissioned from thirdparty developers before the product is offered to other access providers.

The advantages for VIS Entertainment derive largely from Telewest's large user base. As the country's second largest cable operator, Telewest already provides services to more than 1.6 million UK households, and prospects for growth are good, with market research company Datamonitor expecting the penetration of iDTV services to have grown to 50 per cent of all European households by 2005. For Telewest, the move is significant given rival operator NTL's agreement with a number of games developers, ranging from Infogrames to nGame, for them to provide content for its own broadband digital cable services.

For gamers, the news is also good. The deal is another indication that the future of electronic entertainment will be a connected one, in which communication between both users and devices forms a key component of game design across genres which appeal to traditional gamers and new users. As **Tom Cotter**, Telewest's games content manager, puts it: "The world is looking to the games fraternity to beat the shortest path to compelling broadband interactivity. With VIS we have an opportunity to create a phenomenon by consolidating the digital capabilities of Telewest's broadcast network, the community basis of the Internet and the interactive skills of VIS Entertainment."

OUT THERE

REPORTAGE





WonderBorg comes in silver or grey, though expect designer-styled shells to become available soon





Visit www.bzpd.freeserve.co.uk/zombie.htm in order to hear the *Lazy Jones* track which became a legend



Watch these fearsome creatures hunt down the family hamster from the comfort of your PC



Plastic knobbly building bricks have certainly come a long way since their humble conception in 1932

01 Japan consumed by Borg

Japan: Bandai's WonderBorg is set to become the height of virtual pet chic. The cute bug comes with three types of locomotion: standard legs, wheels, and flexible limbs, and retails for ¥12,800 (£82). A cartridge which fits inside the WonderSwan Color enables the device to be programmed with simple commands. Icons can be selected to enable the gadget to navigate obstacles, climb slopes, and respond to changes in the light. It will even emit sounds of pleasure upon encountering a fellow Borg. The creature reacts to the radio waves from the WonderSwan Color and uses just two AA batteries. WonderBorg is already generating a great deal of interest, with shoppers in Akihabara clamouring for units. Big Trak, eat your heart out.

02 C64 tune reaches number two

UK: Over many years the **Edge** office has debated how much 8bit videogame music has in common with commercial dance music. Now, thanks to Chris Abbott of www.c64audio.com, the argument comes to a head, because it turns out that Zombie Nation's Euro-wide hit 'Kernkraft 400', which recently reached the number two spot in the UK's charts, was built around a sample from David Whittaker's C64 title, *Lazy Jones*. Abbott assisted in negotiating a royalty fee for Whittaker, but the question remains: how many more 8bit gems remain out there for the plundering?

03 Lego turns PC

Denmark: Not to be outdone by Bandai, Danish toy giant Lego is to release a new series of Mindstorm toys which incorporate a PC video camera. This new batch of Lego can link to a home computer via a USB connection and beam images directly to the screen. The Lego is fully programmable, and the company claims that custom devices can follow people around a room, keep an eye out for intruders, and even harass the family pet. The robots are available now for £150, with the vision command system costing an extra £75.

Data Stream

Number of days taken for *Tony Hawk's Pro Skater 2* to reach platinum-sales status in the US: **five**

Secret character available to unlock in *Tony Hawk's Pro Skater 2*: **Spider-Man**

Number of Web sites Nintendo intends to close down for *Pokémon* domain name infringement: **55**

Number of PS2 titles currently in development: **270**

Price of PS2 in Ireland: **IR£379**

Pound Sterling equivalent: **£289**

Sega US's top prize for its *Jet Set Radio* graffiti competition: **$5,000**

Number of DVDs manufactured worldwide in 1999 according to The DVD Report: **194m**

Number of DVDs predicted to be manufactured in 2000: **474m**

Estimated sales of DVD devices 2000: **45m**

Estimated sales of DVD devices 2001: **70m**

Number of weeks *Rayman* has remained in the top 20 all-formats charts: **157**

Percentage increase of average weekly unit sales of Dreamcast in the US since the price drop: **156.5 per cent**

Number of European Dreamarena subscribers: **400,000**

Number who use the service daily: **ten per cent**

04 "I'll have a cyber-razor cut!"

UK: If you weren't lucky enough to secure a PS2 preorder, help is at hand in the form of the Lynx Barbershop on Oxford Street in London, which opened on October 7. While waiting for a haircut, or indeed a shave, a manicure, or a facial, customers will be able to get their *Tekken Tag Tournament* fix. The only question is how many haircuts you will actually need before the launch.

05 Handspring goes hands-free

UK: Handspring is to launch a wireless phone module to accompany its versatile PDA. For $299 (£205) users will be able to slot the device into the back of their organiser to make speed dialling, conference calling, and text messaging a more intuitive experience. The VisorPhone to be released in Europe early next year will enable users to record and edit data while receiving calls. A headset will provide full hands-free action.

06 SnakeBITE and in the black

UK: Is SnakeBITE the smallest peripheral in existence? The tiny joystick clips onto Nokia mobiles, allowing *Snake* fans to more easily pull off spirals and zig-zags. A £20,000 high score competition has recently been launched to promote the device.

07 Gotta match 'em all

UK: UbiSoft's ambition to break into the publishing top five knows no bounds. *Animorphs* is the company's forthcoming Game Boy title, which bears more than a passing resemblance to a certain Nintendo title. Cynical rip-off, or the sincerest form of flattery? You, the paying public, get to decide in November.

Soundbytes

"If only I could get Bill Gates in a headlock, I'd give him some good noogie"

Mark Hamill reacts in *The Guardian Online* to the news that his Microsoft-published videogame is to include elements of violence

"I still like to punch the training dummy if I get stressed in meetings. I call him 'PS2'"

Sega Europe's chief operating officer, **Kazutoshi Miyake**, on his karate obsession

"I'm not very good at beat them up games, but I do like games where you have to think. I love *Final Fantasy* – the character Rinoa's great, and I model my hair on hers"

Charlotte Hudson (the other one from 'Watchdog') convincing *News of the World* readers of her PlayStation credentials

"The vast majority [of PS2 games] are tricked-up versions of existing [games] which, while they look brilliant, are generally too familiar… *Gradius III* & *IV* are a joy to behold"

The Daily Telegraph's dotcom section on upcoming PS2 software





The Oxford Street Lynx Barbershop, where you can experience a brush, or a close shave, with PS2

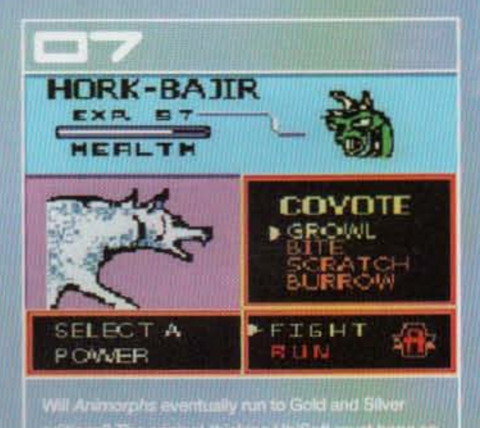


One of the main benefits of the technology is the ability to text message by using a stylus on screen





Snake one-handed? Not a problem. Visit www.ismo.co.uk for more details



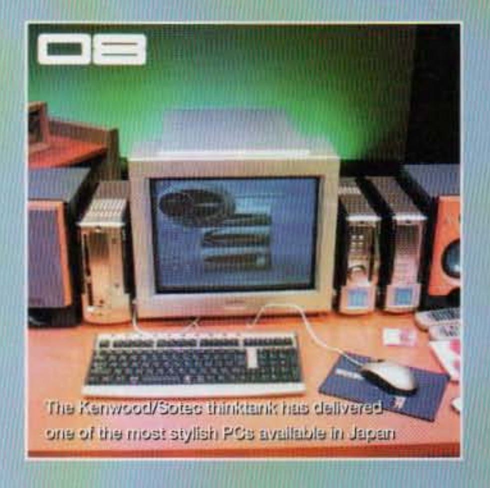
Will *Animorphs* eventually run to Gold and Silver editions? The original-thinking UbiSoft must hope so



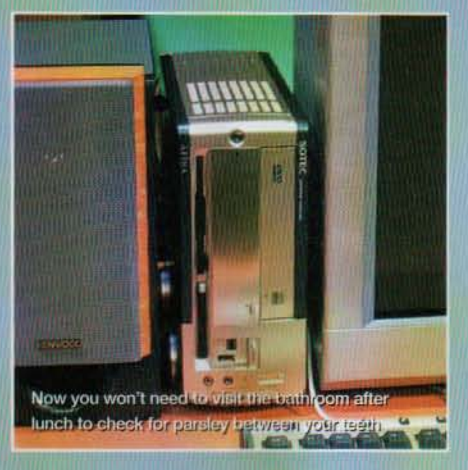
The animorphs are five teens able to alter into beast form at will. Creature types are collectable, natch



Will deer and chimpanzees engender the same kind of following as Pikachu and chums?



The Kenwood/Sotec thinktank has delivered one of the most stylish PCs available in Japan



Now you won't need to visit the bathroom after lunch to check for parsley between your teeth





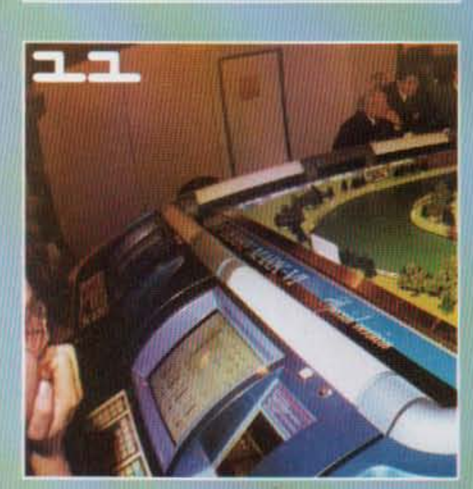
Gladiator Saracen took time out from supermarket openings to compare muscles with the winners

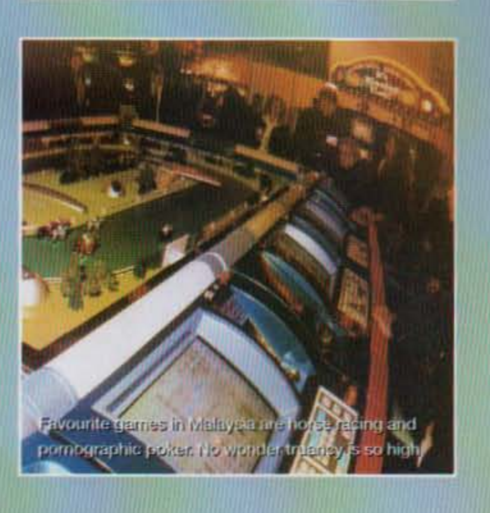


Finally, Kirby's spherical form comes into its own as he becomes the star of a millennial *Marble Madness*



The Game Boy's low screen contrast means tilting it to avoid hazards can lead to moments of blind panic





Favourite games in Malaysia are horse racing and pornographic poker. No wonder truancy is so high

08 Computers get complementary

Japan: Ugly PC hardware may become a thing of the past now that technology giants Kenwood and Sotec have teamed up. Their first project integrates a PC inside a top-of-the-range stereo. Three levels of power, based on a Celeron 500 to 800MHz processor, are in development. The result is a beautiful package sure to please anyone concerned about their Feng Shui.

09 Gameplay finds its champ

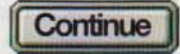
UK: The Gameplay championship finals, held at LIVE 2000 and hosted by Rik Henderson, who introduced himself as, "The one from 'GamesMaster' who isn't Dominik Diamond," gave consumer electronics punters the chance to see the cream of the nation's gaming crop. Thanks to the curious choice of venue, the event drew a decent-sized audience of car fans and stereoheads, all of whom seemed sufficiently disinterested in the X-Box rolling demo running on the big screen between events.

10 Kirby rolls into the UK

UK: *Koro Koro Kirby*, due for a British release next year as *Kirby's Tilt 'n' Tumble*, sends the pink puffball on a unique *Marble Madness* style rolling journey. The Game Boy title is the first to use Nintendo's motion-sensor technology, so to control Kirby the player must tilt their Game Boy in the appropriate direction to move, and a quick jerk of the Game Boy upwards causes Kirby to jump, rendering play on the bus journey to work a lottery of speed bumps and driver cornering speed. It may sound daft now, but you'll see…

11 Risky coin-ops face ruin

Malaysia: Arcade operators in Malaysia have been given two weeks to close down their premises. Government officials have branded the pursuit 'an opium' and believe the measure will curb social ills. Gambling games are already banned for Muslims, who make up half the population, but the edict will affect any machine, even simple puzzle games like *Mr Driller*.



Taking delivery of new Mac G4 Cube hardware
Does it look as sexy in the silicon? Oh, yes
Seeing a track from *Lazy Jones* at number two
An crusty old C64 tune in the charts? Chuckles all round
The not-so-subtle art of Karaoke
An ancient Japanese culture recently revived by the **Edge** team



Locating power supplies for old-generation consoles
You would not believe how many knots leads can tie themselves into
Web-publishing hassles
Yes, honestly, **Edge Online** will be alive and in full effect soon
www.giftsforbirds.com
Another new, lame Web site to send **Edge** a press release this month



12 Creation: Life And How To Make It

Steve Grand – father of Norns, creator of *Creatures*, and founder of CyberLife – has thought long and hard about life, specifically artificial life. The games *Creatures 1*, *2* and *3* now have a worldwide following of millions. Hundreds of fan sites ponder the meaning of his creations and the cuteness of his Norns, and there's one that even describes ways of torturing the electricity-breathing pets. Yet few understand what makes them tick.

This book is his attempt to answer the existential dilemma of artificial life. Now that Norns are 'no longer an endangered species', Grand has abandoned his cyber-progeny and devoted his time to writing the *Creatures* bible. The result is a deeply personal journey into the meaning of artificial life.

Grand describes with pithy thought experiments how for artificial life to truly exist it must emerge in a system where matter (or – in cyberspace – virtual matter) obeys simple rules that give rise to 'persistent phenomena' which can metabolise and grow, and yet retain an identifiable form. Things that simply appear intelligent by 'design' may not necessarily be intelligent at all, but just good actors or – as in the case of IBM's Kasparov-beating chess machine Deep Blue – fast calculators.

Grand argues that, even in cyberspace, real life (and thus intelligence) emerges as a product of simple mechanistic organisms interacting with each other under the laws of genetics with a gentle helping human hand for guidance. His writing is by turns engaging, inspiring, airy-winded, and always heartfelt. As he confesses in the opening pages, at the advice of controversial Oxford geneticist Richard Dawkins, Grand chose to write this book over producing a PhD thesis. Good call, Dawkins.

13 Killing Time

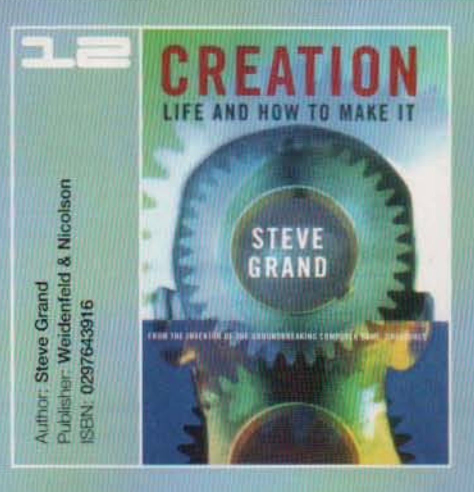
Caleb Carr sees a bleak future ahead. The truth is a matter of perspective in a scarred world where every bit of information we receive is alterable and unreliable. So, what's new?

The scene for 'Killing Time' is set in an appropriately morbid near future-past in the days after the 'devastating E-Coli outbreak of 2021', the 'staphylococcus epidemic of 2006' in which 40 million people died, and the assassination of the American president, Emily Forrester, in 2018.

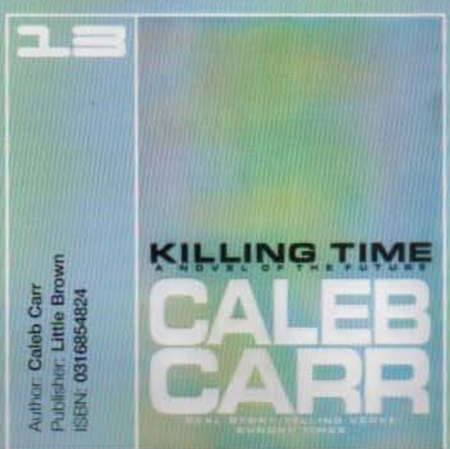
The day Dr Gideon Wolfe, a criminal psychologist at the John Jay University, New York, receives a visit from the widow of murdered special effects expert John Price, his whole world turns upside-down.

Mrs Price delivers Wolfe a videodisc with footage that suggests the popular explanation of the president's assassination may not be all it seems. It reveals that delicate digital doctoring was used to hide the murderer's true identity. Cue a JFK-style conspiracy theory that involves some predictably wacky hi-tech hardware and a babe in a skintight one-piece to fight the unscrupulous powers of the conspiratorial forces. Then follows a glancing tour of the world's notorious intelligence agencies (CIA, Mossad) and lesser-known hidey holes – including tribal lands in darkest Africa and a little archipelago off the coast of Scotland called St Kilda's – as Wolfe, the loan canine, seeks justice.

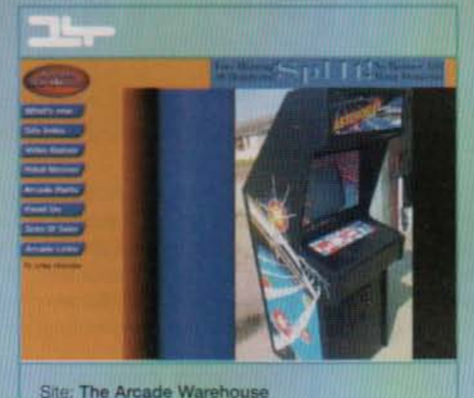
Carr reads like John Grisham humping Neil Stephenson on the back seat of a car in the motorway fast-lane. It's not the most pleasant, or intimate, experience, and the clichés queue up with predictable tedium. But it's an action-packed Hollywood-style romp nevertheless, and if you have a little time to kill it could be just the ticket.



Author: **Steve Grand**
Publisher: **Weidenfeld & Nicolson**
ISBN: **0297643916**



Author: **Caleb Carr**
Publisher: **Little Brown**
ISBN: **0316854824**



Site: **The Arcade Warehouse**
URL: **www.arcadewarehouse.com**

14 Web site of the month

Formed a relatively short time ago, The Arcade Warehouse has nevertheless been doing storming business from customers as widely diverse as top-ranking Lloyds brokers to legendary '80s popster Sade (the latter recently electing to pick up a bona fide *Choplifter* cabinet after becoming hooked on it during the French leg of a tour back in the day). The company offers a scarily comprehensive range of old videogame arcade machines, pinball tables, quiz machines, and beyond – all delivered with a sense of customer service unmatched in its field. The reason behind this customer-care methodology is that one of its proprietors is a gamehead in the truest sense of the word: he understands the value of a rare, original tabletop version of *Ms. Pac-Man* like few others. The company now even offers Christmas rental services.



15 Advertainment

Japan: For some reason Japanese videogame ads aimed at children frequently poke fun at adults, few more blatantly than Nintendo's *Pokémon Gold* and *Silver* campaign...

01. Opens on kids playing the new *Pokémon*. Kid: "Come on, Pikachu!" 02. Shot of businessman on his lunchbreak 03. Man: "Huh?!" 04. He gets up 05. "Hey, is that *Pokémon Silver* and *Gold*?" 06. "Hey, kids!" 07. Kid: "Pikachu!" 08. Man: "Are you playing..." 09. "What? A puzzle game?" 10. "It is a puzzle!" 11. Kid: "Do you wanna try?" 12. Man: "Oh! I... I can?" 13. "Wowww!" 14. "It's... it's so greeeaaat!" 15. "Hey, come on, wait for me! I want to try it again! Hey!" 16. "Can anybody help me? Please?"



REDEYE

Commentary from inside the videogame industry

The dangers of a limited public image

Now that the autumn Tokyo Game Show has taken place, and E3, ECTS and Spaceworld are just hazy memories, the videogame exhibition calendar is over for another year. Which isn't to say that the diaries of videogame journalists are empty. With the imminent release of PlayStation2 and the crucial Christmas (and indeed post-Christmas) retail period, commercial release schedules are no respecters of media timetables. There are plenty of forthcoming opportunities for hacks to be herded like cattle into crowded venues, there to hear another critical proclamation about the broadband future of gaming, or to view the latest selection of genre-defying titles.

Perhaps unbeknownst to publishers and their PR firms, the decision taken regarding the location of such engagements is one that is fraught with danger. There is always the chance that the more cynical element of the journalistic fraternity is as likely to be influenced by the quality – and quantity – of free food as it is by the abundance of polygons that the current Formula One game pushes around. While some announcements justify a full-scale junket to exotic locales, and others are made through an exclusive interview with a single publication, the vast majority occupy a kind of middle ground in which the numbers of journalists attending must be balanced with the cost of hiring a location. It is an oft-overlooked fact that this balance should not be at the expense of leaving a bad impression.

Microsoft managed to strike this equilibrium when it announced the 150 X-Box developers at Covent Garden's Nutopia recently. Although Nutopia apparently failed to establish itself as an Internet café, it seems to be successfully managing to carve a niche as a venue for all kinds of new media conferences. Those lucky enough to arrive early were able to get a seat and a flatscreen monitor on which to view proceedings, and were well placed to grab first pickings of the copious trays of sophisticated nibbles – though it was a little disconcerting to see these come from the entrance to the toilets. Latecomers could take solace in the Swedish minimalist interior, which had several large screens to give everyone a good view. Staff were attentive and sufficiently well-dressed and pleasing to the eye not to have looked out of place in a Conran restaurant, though it must be said that one or two had an attitude to match, with one hack being disdainfully admonished that the noxious-looking green stuff in champagne flutes was a 'classic' cocktail. The only mistake that Microsoft was guilty of was forcing smokers to take to the streets to get their fix. As anyone who attended ECTS will attest, the life of a videogame journalist is not one that pays heed to health warnings.

The Playing Fields, in London, could not be in sharper contrast to Nutopia. For a start it has managed to achieve success as a cybercafé as well as proving to be a popular location for videogame companies to show their wares to the press. Codemasters, for example, chose the venue to demonstrate several PC titles some days after the Microsoft event. But, while staff are friendly and there is a reassuringly informal atmosphere, RedEye can't help but wonder if it would be better off if it stuck to providing networked gaming rather than getting into the murky world of press events. The employee to journalist ratio tends to verge on one:one, making it difficult to maintain a semblance of organisation. And with many workers finding time to survey the goods on show, it's a repeat of the 16-year-old store manager syndrome that takes place every year at ECTS. Although these individuals may enjoy getting a first look at a quality title, they don't have readers to report to on a monthly basis, as the hardworking RedEye does, which is why it grates to have to wait for them to finish up before being able to get a hands on impression of a game like *Severance*, or *Insane*, or any of the other products that Codemasters were displaying.

Another gripe is that the cellar bar architecture makes it difficult for a publisher to let their merchandise shine. By far the most interesting title on show at the Codemasters event, *Operation Flashpoint*, was hampered by being demonstrated on two PCs in an alcove that suffered from having a maximum capacity of five people. Of course, this might not have been a significant problem were it not for the fact that two of these were from Codemasters, and the other three were required to adopt poses that make a mockery of our evolution as bipeds.

But things could have been worse, of course. Every so often, companies will hold these events at their own offices. Indeed, some offices feature state-of-the-art facilities for this very purpose. More often than not, though, an invite to a company HQ as part of a broader contingent of journalists is down to last-minute organisation. Witness the attempt of **Edge**'s correspondent to join the ranks of those invited to speak to the distinguished Yuji Naka at Sega's European HQ:

"Eugene who? We don't appear to have a Eugene working here."

"No, I'm here to interview Y-U-J-I Naka."

"Oh. Hold on, I'll find out if I can locate him. Do we have a Y-U-J-I Naka working here?"

The more cynical element of the journalistic fraternity is as likely to be as influenced by the free food as the abundance of polygons

At which point it was clear that the afternoon wasn't going to go strictly according to plan. It's at times like these that RedEye would prefer to be in the relative safety of the office, or at least imagining a world in which everybody in the industry had as good an understanding of the importance of maintaining an impeccable façade as Microsoft. Journalists may be lazy, but they aren't stupid. Far better to make them work at finding fault with a product than with the PR presentation.

RedEye is a veteran videogame journalist. His views do not necessarily coincide with ***Edge****'s*

Forget about virtual reality for the time being; the new kid on the block is augmented reality. If the imaginative tech-heads in Japan have their way, we will soon no longer have to search out information about our immediate environment – it will just pop up in our field of vision when necessary. And, like many, this technology has already been anticipated by videogames.

AR aims to combine research in wearable computing with high-speed rendering engines in order to 'augment' the reality that we ordinarily experience with context-targeted, computer-generated data. The applications are widespread. A brain surgeon, for example, might be able to 'see' his patient's head made transparent, together with a three-dimensional model of the brain to be operated upon, rendered from a previous scan and overlaid on the visual scene with precise calibration. A fighter pilot flying low in heavy cloud could nevertheless 'see' realtime, accurately modelled terrain through his cockpit window. On a more trivial level, you might be walking down the street and pass a cinema, whereupon a list of film times and seat availabilities would wink into existence before your eyes. In effect, AR could function as an instantly accessible, global, up-to-the-minute encyclopedia wherever in the world you travelled.

Augmented reality is a spectacular kind of cyborg dream: a utopia where our senses – our only way of directly interacting with the world – are themselves enhanced by information engineering. Some versions of it already exist. Military aircraft have already had a specialised kind of augmented reality for decades, in the form of the pilot's head-up display, whereby cockpit data is projected on to the windshield (through an old mirror trick known as Pepper's Ghost) so that he doesn't have to look down at panels of dials and gauges all the time. (This has long been paralleled both in serious flight simulations and in more arcade-style games, as with the tumbling red squares of *Wipeout3*'s missile-lock system.) Sci-fi writers thought of it a long time ago: remember the Bionic Man and his special zooming eye? AR isn't a brand-new idea, it's just that only now is technology making it a feasible massmarket application in the next decade or two.

And as it develops it would do well to notice the creative use of AR in videogames, which have invented ever more useful ways of presenting information as a coherent part of the gameworld representation, rather than relying on marginal instrument readouts. A simple example of the way this can actually be justified in the game's fictional context is in *Deus Ex*, where J C Denton's nanobiology enables him to distinguish friend or foe from a distance when the player passes crosshairs over the target.

Crosshairs themselves, in fact, are a form of in-game augmented reality, too. After all, it is clear from the perspective in which weapons are drawn that Denton, Dark, or your chosen *Quake 3* avatar isn't sighting carefully down the barrel all the time. So the crosshairs are in one sense an arbitrary, artificial aid to the player's aiming. Yet we can also think about them in terms of augmented reality, and surmise that future real-world guns with onboard computers that communicate with the subject's optic nerves will be able to recreate precisely this situation. In this way, many things that currently look 'unrealistic' or like clunky fixes in videogames might just turn out to have been ahead of their time. When real-world technology catches up with them, they'll be seen to be perfectly believable.

A nice aesthetic paradox is that videogames gave us the augmentations long before they could ever give us the reality. Take the brutalist, glowing green-and-red wireframe of *Battlezone*. At the time, it was in effect the best approximation to reality that videogame technology was able to deliver. But it managed to make a virtue out of its abstraction, persuading the player that he was a soldier in some futurist war in which this computer-generated image intensified and made navigable some dark, messy, hostile environment that was really out there. Now that wheel has come full circle: real military research into AR is providing infantry soldiers with *Battlezone*-style revelations of hidden enemy units on their helmet-mounted visor displays, overlaid onto the subject's direct view of the environment. And games themselves can now choose to use wireframe as AR: *G-Police 2*, for example, cannily attempted to justify its horrendous draw distance by pretending the environment really was extremely foggy, and that your gunship was equipped with AR instruments that drew far-away buildings in ghostly outline.

There is another set of visual paradigms in games that do not strictly qualify as true AR, yet they might provide models for future augmentations that can be overlaid onto a direct view – the delicious apparatus of night-vision, remote cams, sniper sights and so on. Brilliantly manipulated by *Metal Gear Solid* and then taken to wonderful extremes by *Perfect Dark*, with its psychedelic wall-defying Farsight and weirdly claustrophobic infrared goggles, these quasi-augmentations enhance even further the organic illusion of the gameworld's actual existence. For if we can observe the same environment in many different ways – thermally, through X-rays, zooming in and out at will – we naturally get a sense of the world being more real, because it opens up to such manifold visual probings than if we are constantly bumping up against magnified textures and operating in a world that confesses to only one informational scale.

It will be fascinating to compare the developments of videogame AR with its real-world counterpart. For if it is true that AR-style devices in games tend to increase the illusion of a reality that is already there to be augmented, it might work the opposite way in real life. Will we come to rely on the informative comfort of real-world AR so much that the naked, unaugmented real world comes to seem a shadow of its former self?



TRIGGER HAPPY

Steven Poole

AR: bringing out the bionic man in everyone

AR aims to combine wearable computing with high-speed rendering engines... like many, this technology has been anticipated by games

Steven Poole is the author of 'Trigger Happy: The Inner Life of Videogames' (Fourth Estate, £12). Email: trighap@hotmail.com



The term 'industry veteran' is bandied around so often nowadays that it has almost lost any meaning, but **John Cook** stands head and shoulders above almost all others in deserving the tag.

Joining *Popular Computing Weekly* in 1984 as software editor, the now-40-year-old Cook analysed around 20 games a week over a spell of two years before getting itchy feet. "Writing about them soon became frustrating," he relays, "because you can see the flaws but can do nothing about them." A career in game publishing beckoned.

The ill-fated Mirrorsoft became his new home for the next two years, where he managed the company's game output. "Virtually the first thing that landed on my desk was a jiffy bag from Moscow," Cook remembers. "And it was *Tetris*. Following that game from ground zero to global phenomenon was a genuine education – from development to marketing to commercial exploitation. All these elements have to be right for a game to be a success."

The *Tetris* saga from Mirrorsoft's perspective has, of course, been well documented in David Scheff's 'Game Over'. In 1988, Cook moved into a role which he still revels in to this date: "I've been working in business management. The mission of any good development group must be to make great games, but that requires the right development structure and rigorous follow-through with consumers, both to ensure they are aware of the product and to obtain the vital feedback for the development process. That in turn needs to take place within a sound commercial structure and with a financial strategy that means the group can the exploit success if and when it comes. My job is to help clients pull all this together – arranging the publishing deal is only a part of that process. That said, each client is of course unique and has different talents and aspirations that have to be catered for."

Cook, then, has been something of a father figure to the development fraternity, representing the likes of Maxis, Bullfrog, Sensible Software, The Bitmap Bros, and Lost Toys in terms of placing them in front of the much-fraught glare of publisherdom. Far from being some form of clinical, detached entity, however, he has firm opinions on the future of gaming. "What we as an industry have to face up to now is the challenge of making games for people other than ourselves," he says. "We've been introspective for too long. The single sadness I have is the narrowness of vision demonstrated by so many game makers. Of course, this isn't the only fault of developers; funding is a big part of the problem. It's undoubtedly often a struggle to get finance for something that's thinking 'out of the box', especially given the large, bureaucratic nature of many large commercial organisations. I admire enormously both Chris Deering and Ian Livingstone as having great natural instincts for gaming in the broadest sense, but even they have to work within the frameworks of big companies which are naturally conservative.

"Commissioning by committee and the creation of large, publisher-owned in-house teams have come close to terminally damaging the business, both commercially and creatively. While they have their place – look at EA Sports – for our business to reach its full potential it will have to look beyond sequels and clones. And committees."

Cook turns up for **Edge**'s photoshoot in a suit (admittedly without an accompanying formal shirt) and shoots opinions such as this. He has a second home in the south of France – a luxury which speaks for itself. But if the development community really is to push the videogame medium forward, surely the videogame industry needs more like him.

Edge's most wanted

Phantasy Star Online

A hugely ambitious title which will bring nations together in harmony and cooperation. That is until one of the four players decides to steal all the treasure.



(DC) Sega

Red

Completely baffling in Japanese, *Red* still manages to excite some of the more statistically obsessed members of the **Edge** team.



(PS2) Konami

OutTrigger

The game which made FPS action fashionable in Japan. Sega claims that the coin-op conversion is just as slick and dynamic. Early signs show promise.



(DC) Sega

Daytona USA 2001

Anybody who has sampled the delights of eightplayer link-up in the arcades will understand the excitement of the **Edge** team at the return of this classic.



(DC) Sega

Small wonders

Making a little magic go a long way

There was a videogame released in 1984 on both the Spectrum and Commodore 64 which was a revelation. It did not astound with its graphics, sound or animation, and nor did it send shockwaves through the industry by attempting anything particularly revolutionary.

The title in question was *Bruce Lee*, published in the UK by US Gold and marketed as a platform game. Yet this was not the area in which it excelled. Moving from one ladder to the next and leaping obstacles was engaging enough, but the real challenge came from defeating the two adversaries which were sent to thwart your progress. They were included, it is presumed, to spice up the rather lacklustre platforming action, but their presence and personalities took over the entire game. This wasn't a sophisticated beat 'em up on the scale of *Way Of The Exploding Fist*, yet there was something absolutely compelling about defeating these two sprites with simple kicks and punches. The fact that they would just get back up to take another beating made them irresistible targets. Completing the game didn't matter any more because something more engaging had been embedded into the code.

How many games include such sublime gameplay elements which threaten to overshadow the game proper? *Daytona USA* on the Sega Saturn showed all the signs of a rushed and poorly converted product, yet it featured two delightful gameplay elements which lifted it above rival racing titles. Many will fondly remember the inspired fruit machine mechanism which could grant the player bonuses if the slots were stopped to reveal three '7's. The need to trigger this small gameplay element eventually turned into an obsession. Second, there was the ability to connect with and affect roadside scenery. Cones would bounce off the bonnet and skitter down the roadside in a manner which was more convincing than nearly anything else in the game. More impressive still was the fact that the cones would not simply disappear, but would remain abandoned in the road awaiting your next circuit. The drive to attempt to keep a cone bouncing along in front of your vehicle could, strangely, prove more addictive than competing with your motorised rivals.

Daytona USA is making its way back to the home (see p50), and it is hoped that such gameplay nuances make a return. Because sometimes it isn't the grand vision which impresses, but the tiny pieces of gameplay magic which make gamers fall in love with, and obsess over, a title.





030



034



039



043

Dark Cloud

The action RPG that stirred up so much interest at the original PS2 presentation doesn't look like living up to expectations, yet incorporates some original features





Dark Cloud first appeared in a hugely impressive demo shown at the formal announcement of PlayStation2. The action included intricate bouts of swordplay, travel aboard flying carpets, and a staggering facility whereby you could zoom into a scenario you had 'created' from a top-down perspective high above the gameworld.

Sadly, the product proper looks unlikely to include many of these features, although the premise of the action RPG is now much clearer. As *Dark Cloud*'s director, **Kentaro Motomura**, explains: "Many things were dropped as development continued, but don't forget that the first video was kind of a technological demo for PS2. But, yes, many of the things I was thinking of working into the game are no more, due essentially to time constraints." Nevertheless, the title has retained a number of highly original elements – including the 'diorama', whereby you play a hand in generating the gameworld – which are neatly incorporated into the narrative.

"The game takes place across two countries," explains Motomura-san. "One believes in magic, the other is more militaristic. The military nation discovers an ancient location where it is said a demon is held, and frees the monster, which appears in the form of dark clouds, in order to deploy it as a deadly weapon." The demon's destructive power is witnessed by a wizard, who realises he isn't powerful enough to combat it alone and opts to protect the population by sealing entire villages in capsules spread across the game map. He then identifies a young man to whom he sets the task of recovering the capsules from the dungeons in which they are stored, rebuilding the country, and then destroying the demon.

The main character isn't alone in his endeavours, with up to six playable characters – plus an unspecified number of hidden ones – to be encountered through the game. Each has a specific ability which may need to be brought into play in order to defeat enemies or overcome obstacles.

"You follow your character in the thirdperson and face or avoid enemies as they appear," elaborates Motomura-san. "At the end of each dungeon you have to face a boss before recovering a capsule and freeing its contents. These boss stages also require you to utilise the abilities of several characters in order to succeed. You then return to the village's former site, when you access the diorama element of the game and design the village.

"You arrange the buildings and other elements from a top-down perspective according the villagers' wishes, and when you are finished the game will evaluate your skill. After having rebuilt the village, you'll be able to walk around your creation, which then serves as a hub from where you explore new dungeons. As for the rest of the gameplay, it is very similar to any other action RPG, but the diorama is very unique."

These gameplay similarities include *Final Fantasy IX*-style exclamation marks appearing above character's heads when an action is open to the player or a location is worthy of closer inspection, but, more









Capsules (above) are hidden around the map, and include villagers and villages protected from the demon unleashed on the world by a militaristic race



Rituals and dances (top) play an important role in the game, a fact which SCEI recognised by recruiting professionals to choreograph routines and to help the team make the moves look more realistic

***Dark Cloud* will certainly be the best action RPG on PS2, but had Sony afforded the title more time, the end product could have been improved**

Format: **PlayStation2**
Publisher: **SCEI**
Developer: **In-house**
Origin: **Japan**
Release: **December 14 (Japan) TBC (UK)**



Comparisons with *Legend Of Zelda* are virtually unavoidable, what with the swordplay element of the game and the startlingly similar control system

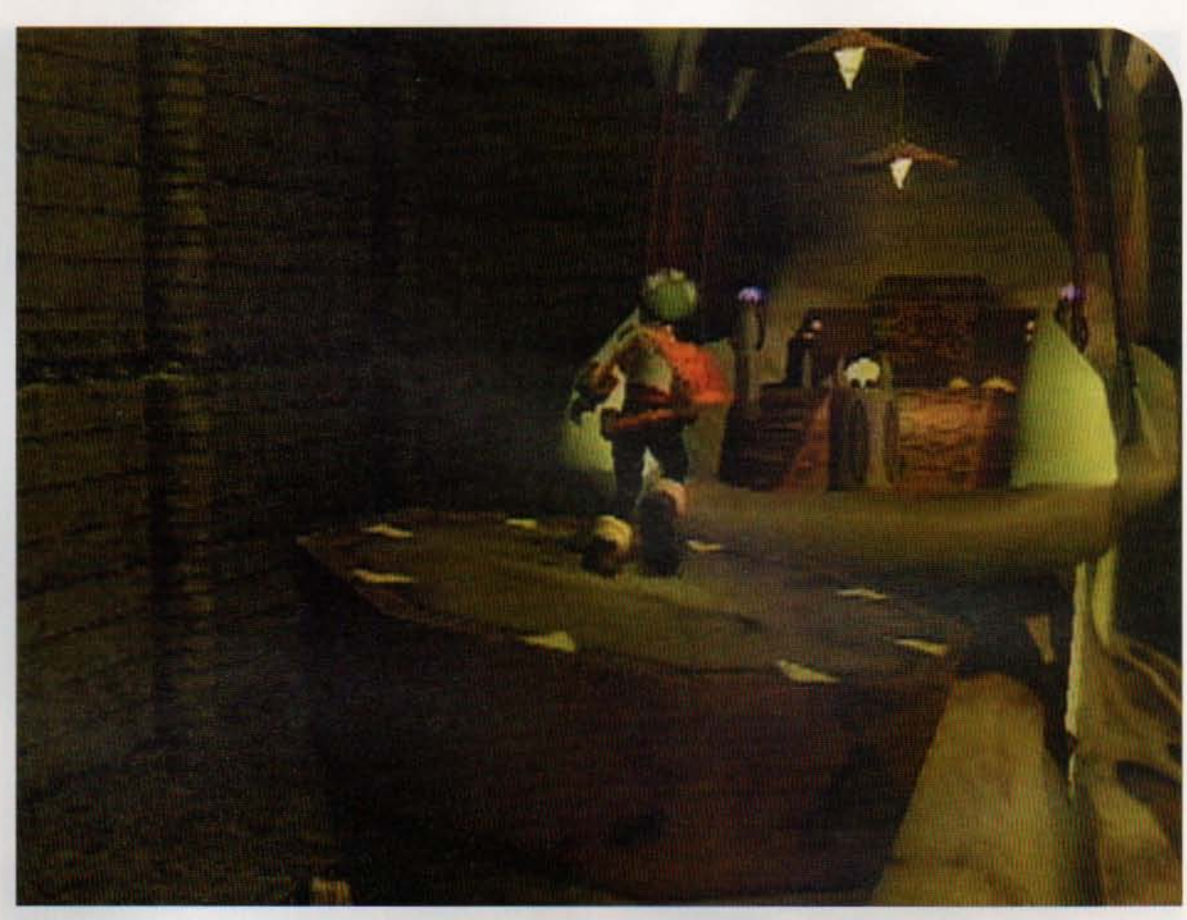
strikingly, a control system virtually identical to that of *Legend Of Zelda*, complete with the red square of the lock-on system.

However, Motomura-san argues that these similarities have developed organically as the game has taken shape, rather than the title being defined by them: "I spent a long time thinking about how to design a perfect interface for *Dark Cloud*. I came up with one, and during the time we spent developing the game, we noticed our interface was very similar to the one in *Zelda*. But *Dark Cloud* has this unique diorama feature, which makes it very distinct from any other title."

As it stands, *Dark Cloud* will certainly be the best action RPG PlayStation2 has to offer, but it is also apparent that had Sony afforded the title more time – it may be that the impending arrival of GameCube has stirred the company into action – the end product could have been improved. The graphics through the game are currently average at best, with both boss and background design demonstrating an apparent lack of ambition in design terms, the latter displaying some decidedly N64-esque textures. Some sections also suffer from anti-aliasing problems.

Other niggles include a cumbersome character management system, which serves to interrupt the action on a regular basis, audio support that fails to make the best use of what PS2 has to offer, and realtime movies which fail to measure up to those of *Legend Of Zelda*, even.

While *Dark Cloud* boasts some truly innovative features, it currently lacks the polish action RPGs require to capture the imagination and bring the gameworld to life. The original demo showed what PS2 is capable of in technical terms, but this title doesn't look like delivering the all-round strength PS2 promises, which begs the question: where is there one that will?



During the action elements of the game, the character is represented in thirdperson. The player can rotate the camera through 360° to inspect the environment





The player explores the villages he reconstitutes before heading off towards new dungeons, which can include up to 16 levels. There are six playable characters through the game, although an unspecified number of additional ones are hidden, and deploying the correct individual to overcome a given problem is crucial



Keeping the natives happy

The key to success in the diorama element of the game is to arrange the village according the occupants' wishes. Requests can range from wanting to live near a waterfall to asking not to be neighbours with a certain villager. After the initial layout, the village can be fine-tuned, before the game assesses the player's town planning.

Phantasy Star Online

Sonic Team has set out its stall to reinvent the console RPG for the online generation, and is poised to invite Dreamcast owners worldwide to come together and adventure







Players initially choose a character class, but are free to evolve in order to deal with different enemies

Yuji Naka, Sonic Team CEO, has always felt the need to push the limits of console development whether he was creating beautiful parallax scrolling worlds with *Sonic* in 16bit, redefining the 3D experience with *NiGHTs* on Saturn, or generating the mad design document that eventually became *Samba De Amigo* on Dreamcast. Naka-san and team dabbled in downloadable options in *Sonic Adventure*, but now they are finally ready to fully commit to Internet gaming with the first online console-based RPG, *Phantasy Star Online*.

"I made the first two episodes of the series, which were traditional RPGs," explains Naka-san. "I wanted the new *Phantasy Star* to embrace a whole new experience." The result is a unique console RPG that offers gamers from around the world the opportunity to play together. Naka-san stresses that co-operation is really what he's trying to foster. "Teamwork is going to be my main concern for this title," he says. "It will be possible to clear the main quest of the game alone, but that would only account for a small percentage of my whole vision."

This type of experience may be old hat to PC veterans, but the fact that it's a first for consoles makes it something of a social experiment. Up to four players – many of whom may well have never played online – can join together in a quest via SegaNet.

Naka-san guesses that this inexperience will lead to some fresh gaming experiences: "Imagine that four players are in a dungeon and after a battle you are rewarded with a chest. Inside the chest is a cool item. It will be interesting to see how the four players decide who has earned it most. They may fix rules, give priority to the females, or just argue."

Players are nudged subtly towards amicability by the fact that they can't actually hurt one another, but, as any *Everquest* veteran will attest, you never know what will happen when you're playing alongside strangers.

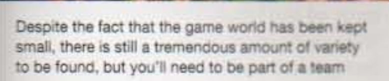
It will also be interesting to see how people who may prefer to play the game alone will deal with the reality that they must work with others to complete puzzles in the game. "A simple example of this," Naka-san elaborates, "would be a mechanism with four switches that need to be operated at the same time. One or even three players alone would not be able to access this part of the game." Combat is also almost a puzzle in itself, as players will need to co-operate to survive. "Each player will have strong and weak areas, and it will be essential for the group to know each other inside out," explains Naka-san. "Otherwise the party will

Format: **Dreamcast**
Publisher: **Sega**
Developer: **In-house (Sonic Team)**
Origin: **Japan**
Release: **December 21 (Japan) Q1 2001 (UK)**









Despite the fact that the game world has been kept small, there is still a tremendous amount of variety to be found, but you'll need to be part of a team



When you communicate with other members of your party (above) the text will be translated into English, Japanese, French, Spanish, or German, depending on whichever they request



Unlike past instalments of the series, the combat in *Phantasy Star Online* is all realtime, so you'll need good reflexes as well as an eye for tactical planning in order to make your way through the game with any success

be quickly wiped out." Since the fighting is now completely in realtime – a first for the series – it's not hard to imagine players banding together. Gangs of enemies, or even a large boss, would be too difficult for any one player to defeat alone.

Despite these factors, Sonic Team is eager to keep the game quasi-familiar to fans of the series. The gameworld still contains elements of science fiction and magic, and the player can choose to follow paths pertaining to each discipline. The storyline involves trying to get to the bottom of what caused a disaster on the planet Ragurol. Although finer plot details are being kept quiet, Naka-san says he doesn't want to adhere to the same structure as other RPGs. The world, for example, has been kept small to minimise random wandering. "I don't really like titles like *Final Fantasy* or *Dragon Quest*," confesses Naka-san. "You have a very long story, and it is necessary to travel miles and sometimes get lost. I prefer the player to be focused on the gameplay as well as the setting."

Perhaps the most revolutionary part of the title promises to be an interface that ties together players from around the world. The game will ship with support for five languages – English, Japanese, Spanish, French, German – and will enable players to receive translated messages from other team members. While details are scarce on how this has been accomplished, Naka-san has referred to keyword- and icon-based systems that could be used.

Whether or not online console gaming takes off remains to be seen, but Naka-san, like much of the gaming community, feels that it is just a matter of time. His hope is that *Phantasy Star Online* will serve as a catalyst for a move towards online (inter)action by solitary console gamers, which, coincidentally, is only offered on Dreamcast at this point. It's a gamble, but Sonic Team has always thrived on placing educated bets.

Developing the Phantasy

The first *Phantasy Star* (1988) featured top-view and firstperson elements. Set in the lands of Palma in the Algo star system, the aim was to find out the secret of a new dark religion. *Phantasy Star II* (1989) was set on the planet Mota, the question being what was causing the top-down world to go crazy. *Phantasy Star III: Generations Of Doom* (1991) raised the content bar by including seven different planets and three generations of characters. The player could marry and continue the quest as their own children. *Phantasy Star IV*'s (1994) storyline ties directly into the shocking ending of *PSII*. It's regarded as the worst in the series.









Operation Flashpoint

Format: PC
Publisher: Codemasters
Developer: Bohemia Interactive
Origin: Czech Republic
Release: Q1 2001

Bohemia invites you to revisit the Cold War with a title that looks to broaden the squad-based tactical genre playing field by incorporating elements of realtime strategy



The squad-based tactical combat genre has managed to incorporate a number of different approaches, ranging from the turn-based *X-Com* series and the isometric viewpoint of *Commandos*, to the thirdperson squads of *Hidden & Dangerous*, and even the arcade orientation of *Cannon Fodder*. When *Operation Flashpoint* enters the fray early next year, its unique selling point is that it will package a blend of historically authentic realtime strategy and squad-based action with a strong narrative set in an alternative vision of the Cold War.

Although it is still early in the title's development, Prague-based developer Bohemia Interactive has already put together a convincing engine that supports the ambitious intent of incorporating the player's progress from a lowly infantry grunt to the commander of squads of up to 12 individuals across three huge and incredibly detailed islands. Although early missions will take place over a small portion of the landmass, access to a range of civilian and military vehicles will provide the ability to traverse larger areas by the time players are assembling squads from 30 different types of infantry.

Early missions are played out in the first or thirdperson, with an RTS-style view also accessible later in the game. Squad members behave in a convincing manner, advancing in formation or hitting the deck in response to an attack from unseen assailants, and realtime lighting and an accurate star map will enable canny players to navigate unaided in extreme circumstances.

Most of the effort that needs to be expended between now and *Operation Flashpoint*'s release is to tie such a promising concept and engine to a tightly plotted mission structure, though if players aren't satisfied with the mission design, the game will also feature a full mission editor. Although the broad details of the background have been developed, work is proceeding apace on establishing a seamless connection between action and narrative. The game will be set in 1985 against a backdrop of hardcore Soviet opposition to Gorbachev's policies of glasnost and perestroika. When a rebel group appropriates an island community, NATO is sent in as a peacekeeping force, which is the basis of conflict in the game. Despite this parallel universe premise, the emphasis is on realism and the level of military technology is based firmly on real-world examples.

The icing on the cake is that the developer also plans to include a multiplayer combat mode. It remains to be seen whether all these elements will ultimately be realised, but *Operation Flashpoint* shows an immense amount of promise.







Crisp visuals depicting authentic military technology from 1985 are already in place. Players, or the squads under their control, will be able to use all of the vehicles in the game to traverse the immensely detailed landscapes







Operation consistency

As advances in videogame technology enable the generation of increasingly believable virtual environments, the issue of persistence becomes more of a concern for game designers who wish to maintain internal consistency. In *Operation Flashpoint*, for example, it is not just a player's success in meeting mission objectives that is important, it is also the manner in which goals are met. Future missions are affected by the level of co-operation or destruction meted out in earlier operations, particularly if a return to a previously visited location is required.

WinBack

Format: PlayStation2
Publisher: Koei
Developer: In-house
Origin: Japan
Release: November (Japan) TBC (UK)

Koei regenerates its anti-terrorist operative title for PlayStation2, but, bar lifting the fog on proceedings, little seems to have been improved to warrant next-generation status







Despite the more detailed textures, *WinBack*'s look is all too similar to the N64 version. Still, the lack of fog is likely to make for a much better gaming experience, particularly in the split-screen multiplayer option

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Another day, another special intervention unit fighting a terrorist organisation. Some might remember *WinBack* from its previous incarnation on the N64. This, a reworking of the original for PS2, brings the same design, gameplay, and frenetic *GoldenEye*-inspired fourplayer mode, while offering a rather limited revamp of the visuals. Textures are more detailed, but the biggest improvement comes in the draw distance. Koei used the traditional excuse of fog to explain away the pop-up on the N64 version; now the environment is completely clear, giving the player more opportunity to spy from a distance and sneak accordingly.

Preview code is always difficult to judge critically, but the clone-like remake policy exhibited here is disheartening. The relative increase in power in the generation jump from N64 to PlayStation2 deserves more than simply an absence of fog, but **Edge** has yet to witness any new stages, better character models, or any improvement in environmental or special effects in this version. Still, this isn't the final code. With more additions and improvements, perhaps *WinBack* can still become something more than just a filler for those spy-crazed PS2 owners so desperate for *Metal Gear Solid 2*.

Top Gear Dare Devil





Format: PlayStation2
Publisher: Kemco
Developer: Papaya Studios
Origin: Japan
Release: November 24

Papaya Studios looks to have been left on the start line as driving titles progress beyond the straightforward circuit burn, and move into free-roaming racing

The press release accompanying the code for *Top Gear Dare Devil* boasts a game which departs drastically from typical driving game fare. One only has to look at the majority of racing games up for review this month to realise that this is a somewhat erroneous claim. Having the freedom to roam around a city is now becoming more common than straight track racing.

Improvements have been made since the game was showcased at E3 back in May, but it still falls woefully short of anything else in its crowded genre. Frame rates can be slow, and some of the graphical effects are laughable. Driving through a newsagent's stall, for instance, results in the same glass-shattering routine as the one accompanying the trashing of a telephone booth.

Rival gangs and police enter the mayhem to try and thwart you in your missions, although AI is pretty basic. *Top Gear Dare Devil* has a power-up system which may improve the lacklustre driving, but you would think that the ability to trigger a smoke screen would offer little incentive to play further. Though locations including London, Tokyo, San Francisco and Rome can be explored, the early looks at Kemco's first PlayStation2 title do little to engender confidence in its ultimate success.







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Take a close look at these screenshots and you will realise that there is much work still to be done on everything from textures to adding minor details such as round wheels. Yet this title is ready for the UK launch on November 24. The game does at least offer the usual variety of cars and environments. It may struggle to shift units next to *Ridge Racer V* and *Smuggler's Run*

Hitman: Codename 47




Format: **PC**
Publisher: **Eidos**
Developer: **IO Interactive**
Origin: **Denmark**
Release: **November**

Stealth and cunning are what you need in order to make it as a virtual assassin, but IO Interactive has developed a title that also demands you hone your observational skills





The level of realism in *Hitman* may well prompt comparison with *Soldier Of Fortune*, but a more considered approach will be necessary to steer your anti-hero to a successful hit. Effective preparation will ensure a less bloody escape route, and civilian casualties must be minimised in order to progress towards uncovering his mysterious past and perhaps explain that barcode on the back of his head

Hitman is unlikely to go unnoticed by the gaming public for all the wrong reasons, but underlying a superficially morally dubious exterior is a convincingly innovative approach that threatens to defy easy categorisation. There isn't anything new about action games with an emphasis on stealth and cunning, but the balance in *Hitman* represents a shift from titles such as the *Metal Gear* series.

Observation and preparation form such a large part of most of the missions that casing the joint is as essential, and as satisfying, as the hit itself. Weapons must be chosen carefully and used with precision: unnecessary civilian casualties are penalised by reducing the reward for a hit, which has implications for missions later in the game.

Environments, which range from jungles to hotels, are interactive to an almost unprecedented degree, and strong AI, which is essential for maintaining the illusion of realism, is apparent from the range of stimuli that enemies respond to. Consequently each mission can be played in a variety of different ways, depending on how characters behave.

As missions are successfully completed a strong plot exposes increasingly substantial glimpses of the eponymous anti-hero's murky past, building to a dramatic climax. Suffice it to say, all is not what it seems.

Planet Ring

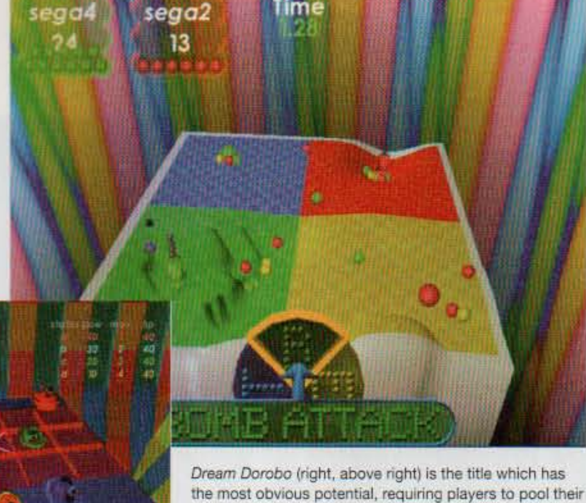
Format: **Dreamcast**
Publisher: **Sega**
Developer: **In-house**
Origin: **Europe**
Release: **Q4 2000**

Sega makes a move towards offering DC owners more online options with an inspired collection of mini-games based on communication and co-operation

Although the technically impressive *Quake III Arena* and *Half-Life* conversions look set to be at the forefront of Sega's online strategy, the uncomplicated graphical presentation and simple tenets of play featured in *Planet Ring* are arguably just as important to establishing a Dreamcast-dependent online community. Although Sega has not yet confirmed how the title will be distributed, there is a strong chance that it could come bundled with the Dreamcast microphone, which would make sense as communication and co-operation are at the heart of this inspired collection of mini-games.

Although four will be initially offered, Sega plans to add another attraction every quarter, with users able to vote about what should stay and what should go. The starting four will be *Ball Bubble*, which sees players compete for balls dropping from the sky by manipulating a playing surface; *Splash*, which is similar to Battleships; *Dream Dorobo*, in which two players must combine their efforts to direct one another through a maze while avoiding obstacles; and *Soar*, a UFO racing game.

The games are forcefully addictive, and merely navigating *Planet Ring*'s interface is satisfying. The Ring Information Centre also provides additional attractions – such as loudest voice competitions. Inspired.







Dream Dorobo (right, above right) is the title which has the most obvious potential, requiring players to pool their ability by means of the Dreamcast microphone in order to navigate a maze. Only one player can see the whole of the maze. The other games are just as compelling, with new additions arriving every quarter to replace any attractions that prove unpopular with *Planet Ring* users

Cool Boarders Code Alien

Format: **PlayStation2**
Publisher: **UEP Systems**
Developer: **In-house**
Origin: **Japan**
Release: **December 21 (Japan) TBC (UK)**

UEP Systems takes videogame snowboarders hors pistes with an ambitious title that, given time to come into its own, could serve to breathe new life into the genre

The piste is passé: entire mountainsides are where it's at. If UEP's *Cool Boarders Code Alien* fulfils its design brief ideal of eschewing tunnel-like tracks in favour of wide, varied environments, it will represent a leap forward for a genre that – *SSX* aside – is becoming increasingly stale.

Although the game's environments seem spartan when compared to the obstacle-strewn tracks of its forebears, UEP's attempt to provide authenticity is an admirable experiment. The challenge the company faces is to marry this realism, of sorts, with solid gameplay – which, after early viewings, looks as though it may come about. The main play mode allows the player, with a damage meter and a time limit to be mindful of, to slide through nonlinear, expansive locales. There is an onus upon tricks and creative use of your board, while finding the best route will require skill and a modicum of strategic thinking.

Hopefully *Cool Boarders Code Alien* will also require an intuitive degree of control on a par with *1080°* – especially if its half pipe and big air play modes are to work. Leaping from helicopters, waterfalls and walls is all well and good, but if the resultant race is hampered by poor controls, accusations of 'style over substance' will abound.







Cool Boarders Code Alien takes the player hors pistes and lands him deep in the powder for a free-roaming romp down the mountainside. However, good as the concept is, as it stands, UEP Systems will need to invest a lot of time playtesting and refining the title in order for it to realise its potential and revitalise the snowboarding genre

Air Rangers

Format: **PlayStation2**
Publisher: **Kodansha**
Developer: **ASK**
Origin: **Japan**
Release: **March 2001 (Japan) TBC (UK)**

Run a mercy mission from your PS2 thanks to ASK's interesting whirlybird-based rescue title that doubtless has Noel Edmonds drunk with anticipation







The textures still need more work, but *Air Rangers* is already looking like one of PlayStation2's most innovative titles to date. Judging by early code and the styling of the screen dials, the game appears to incline more towards arcade handling than a helicopter simulation. However, holding the craft in a steady position while deploying the hook is tremendously difficult and needs some adjustment

Those who enjoy the predictable disaster scenarios of '999' will find *Air Rangers* an intriguing prospect. The situations will range from recovering stranded people from mountainsides to air-sea rescues. Early code also reveals missions as varied as pulling trucks from the edge of a damaged bridge to salvaging lives from a burning offshore oil platform. Varied weather effects will also help to extend longevity.

A heavy emphasis is placed on choosing the appropriate helicopter for the job at hand. Three will be selectable and each has different handling characteristics and hardware specifications. Though the concept is relatively unusual, each mission tends to follow the same format. The briefing will give the players clues as to which helicopter to choose for the mission. They must then make an approach to the destination and deploy a hook to hit a small target. Maintaining a stable position while hitting the target is extremely difficult and some tweaking still needs to be done to make this aspect fun.

Though the graphics and some elements of the gameplay require fine-tuning, a March 2001 release gives the developer a fair chance of delivering an inventive PlayStation2 title.

CMX 2002 feat. Ricky Carmichael

Format: PlayStation2
Publisher: THQ
Developer: Pacific Coast Power and Light
Origin: US
Release: Q2 2001 (US) TBC (UK)

The sequel to last year's snappily titled *Championship Motocross 2000 featuring Ricky Carmichael*, developed for PS2, may well prove the benchmark for games in the genre







If there's one thing that will set *CMX 2002 featuring Ricky Carmichael* apart from other motocross titles, it will be its commitment to realism, and a game engine that enables the team to realise that. So far this has led to the incorporation of realistic banked turns, 'whoops' sections, and the ability to pull stoppies – who knows what else will come to light before the title is ready for release

The first (but surely not the last) motocross game officially announced for PlayStation 2, *CMX 2002 featuring Ricky Carmichael* could easily establish itself as the benchmark by which all future motocross games will be judged.

Although pre-alpha, the title already sports impressive visuals. Each rider model uses 3,000 polygons, each bike uses 3,000 more, and the game blasts along at 60fps. Granted, there's still a long way to go, but what **Edge** has seen inspires confidence.

Realism is what truly sets this game apart. Banked turns are a staple of actual motocross tracks, but they're rarely seen in games due to how tough they are to reproduce, but here, they're everywhere. Likewise, the developer has managed to incorporate 'whoops' sections, the motocross equivalent of moguls in skiing.

However, the most visible demonstration of the physics model's versatility was presented to the team the day it discovered that it enabled the bikes to perform not just wheelies but stoppies (front-wheel wheelies), a feature unheard of in past motocross games. While this may not be useful during races, it bodes well for freestyle stunt competitions, and **Edge** can attest that it's a lot of fun.

Choro-Q HG







Format: PlayStation2
Publisher: Takara
Developer: In-house
Origin: Japan
Release: December (Japan) TBC (UK)

After the disappointment of *Penny Racers*, Takara has high hopes for this title, which offers the player the opportunity to transform cars into boats, planes, or submarines

With so many racing games touting bona fide physics and high-profile licences, the stylised *Choro-Q HG* may prove a welcome, uncomplicated diversion. Much depends the ability of developer Takara to learn from the mistakes it made with its flawed PlayStation and N64 predecessor (released in the UK as *Penny Racers*).

Based upon the titular toy cars, *Choro-Q HG* features a vast array of vehicles. From station wagons to supercharged GT machines, there will be more than 100 individual cars to drive. Interestingly, it will be possible to modify each vehicle, transforming it into a plane, boat or submarine. If the dynamics for each form of racing are carefully balanced, such variety could prove highly pleasing. A worst-case scenario, however, would see one of the styles destroy the 'feel' of the other three, as with *Pen Pen Triathlon*.

Choro-Q HG will reward players with virtual cash for accomplished performances. Disappointingly, its multiplayer support is limited to split-screen battles between two participants; a serious flaw for any title that, with its arcade-style remit, should be aiming to challenge the pre-eminence of the *Mario Kart* series. That Takara is willing to aim its sights lower does not bode well, but there's always a chance players will be mollified by a engrossing oneplayer experience.



Choro-Q HG includes more than 100 different cars, all of which can be modified to the extent that they can be transformed into a plane, boat or submarine. The key to developing this concept will be to pay attention to balancing the different forms of racing this will generate – avoiding the sorts of problems *Pen Pen Triathlon* faced





Ninja Assault

Format: **Coin-op**
Publisher: **Namco**
Developer: **In-house**
Origin: **Japan**
Release: **Q4 2000**

Live out your beslippered assassin fantasies in this Namco coin-op that represents a new take on the *Time Crisis* theme, but does little that's inspirational in the process

After the cancellation of *Soul Calibur 2* on Naomi, few expected Namco to support the format again. *Ninja Assault* is a surprise and it has obviously been designed for export. The cabinet will be familiar to fans of *Time Crisis*, and it plays very much to occidental tastes. It lacks any real Japanese historical basis and the artwork is based on US comic books.

One or two players are tasked with defeating an evil force headed by the demoniacal shogun, Kigai. This puts the player in the curious position of shooting waves of enemies who are armed only with katanas, shuriken, or the their bare hands.

Though remaining true to its *Time Crisis* roots, *Ninja Assault* shows no signs of revolutionary innovation. Combos are possible by killing waves of enemy ninjas, and your score increases depending on the accuracy of the shots. A few dynamic camera movements have been implemented, which include those which follow felled enemies down the screen.

It is patently obvious, however, that the potential of the Naomi board is being only partly utilised. Is it possible that Namco is stretching itself too thin by focusing so singlemindedly on the development of PlayStation2 titles?







Ninja Assault certainly adds a novel twist to the *Time Crisis* format. The game mechanics remain the same, however, with traditional components such as aiming away from the screen to reload returning. The only addition to the mix is a combo system which keeps the score rolling up if waves of ninja are dispatched with consistent accuracy. It's not especially inspiring

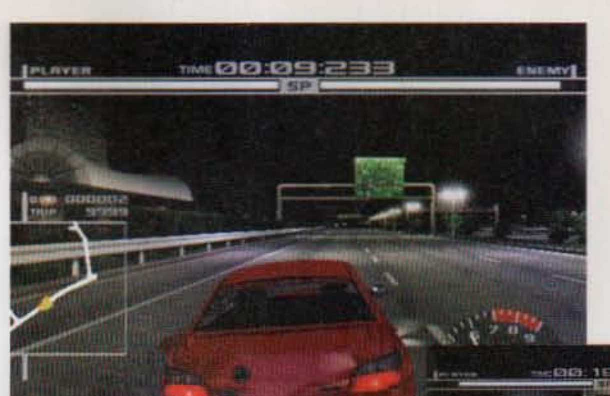
Shutokou Battle 0

Format: **PlayStation2**
Publisher: **Genki**
Developer: **In-house**
Origin: **Japan**
Release: **Q4 2000**

Fun but limited highway-duelling racer leaves the Dreamcast road to get some miles on the PlayStation2 clock, offering the player 180km of Tokyo Tarmac to roar around







Genki is going to have major problems convincing PlayStation2 owners to purchase a game which has already seen two iterations on the Dreamcast. A crowded driving sim market is hardly going to improve matters. Perhaps the greater emphasis on using the wing mirrors will help. Opponents' cars are often quicker than your vehicle and skilful blocking manoeuvres are required

As in the previous two Dreamcast editions, this latest *Shutokou Battle* game has you driving along Tokyo's highway system at night, challenging any of the 300-odd fellow competitors you encounter to illegal races. Should one of them accept, you then have to spend enough time ahead of them until their spirit points bar runs dry.

This *0* episode features 180km of the finest eastern Tarmac, and all of the usual upgrade options become available once you return from your nocturnal runs with prize money. The result of consumer feedback, a new love power system prevents you having to change cars, allowing you instead to keep and tune up several vehicles simultaneously.

Its most interesting aspect, however, is the announcement that the DVD packs drivers permitting compatibility with Microsoft's PC force feedback steering wheel. Demo'd at the recent Tokyo Game Show, the device worked remarkably well and may hopefully encourage other developers to go down a similar route with their own productions.

Racing through civilian traffic at ludicrous speeds is always entertaining, although, as with all previous instalments, the premise's limitations become evident rather rapidly. Still, it's worth a look if your endless circuit-based racing has taken its toll.

Giga Wing 2

Format: **Coin-op**
Publisher: **Capcom**
Developer: **Takumi**
Origin: **Japan**
Release: **Q4 2000**

Twitch gaming makes its presence felt in the arcades as *Giga Wing* returns in updated form, offering audio and graphical upgrades, together with an enhanced twoplayer mode







Arguably the transition from 2D to 3D over the last few years has brought few gameplay innovations to the shoot 'em up genre. *Giga Wing 2* doesn't try too hard to break away from its venerable past. The power of modern coin-op architecture is used to throw around colours and objects with a tremendous dynamism. This should keep more mature gamers happy until the inevitable DC port

At times it can look like *Fantavision*, but rather than maintaining a casual distance from the assortment of psychedelic explosions, you're right in there, dodging for survival. *Giga Wing* returns and promises to bring with it twitch gameplay at its finest.

The simple two-button control method has been kept to ensure that the player is completely focused on the frantic action. Also making a welcome comeback is the reflect force ability which made the original *Giga Wing* so distinctive. The opportunity to repel the numerous enemy attacks increases the gameplay possibilities and offers some respite from the indefatigable enemy hordes.

The twoplayer mode has now been modified, and the emphasis is placed strongly on co-operation. As you work together, the points total accumulates in a shared tally called the guy score.

Unquestionably, the graphical and audio effects have improved dramatically compared to the original title. In keeping with current trends, most of the graphics are polygonal constructions, but the game operates mostly within a 2D game physic. The Naomi board throws the swirling mass of pyrotechnical effects around the screen with abandon, and a Dreamcast port in the near future should not be ruled out.

Arabian Nights

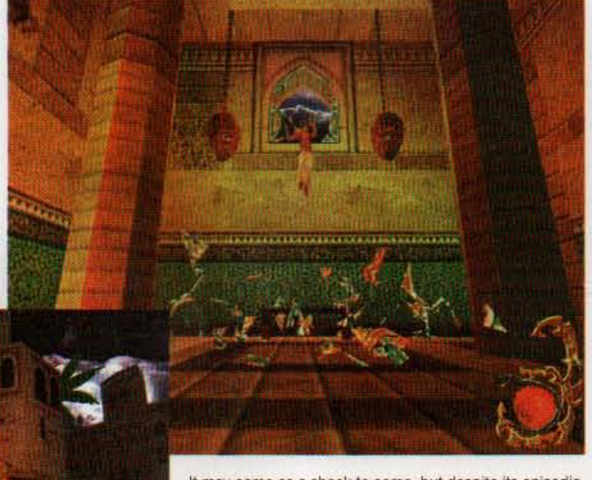
Format: **PC**
Publisher: **Visiware**
Developer: **In-house**
Origin: **France**
Release: **Monthly**

Climb the slippery social pole of Akabha with Ali, who has set his heart on marrying into power in the world's first serialised PC game set to be sold over the Internet

Paris-based Visiware has an ambitious plan. Put simply, *Arabian Nights* is set to be the world's first serialised PC title to be sold to users exclusively over the Internet. By cutting out the usual publishing, distribution, and retail costs, consumers benefit from radically reduced rates.

Set in the distant three-dimensional town of Akabha, you are Ali. Ali can perform the typical variety of acrobatic motions (sprint, jump, climb ladders, walk tightropes, throw knives, and brandish his scimitar) you'd associate with many of today's 3D adventures. Additionally, the ability to command magic sees him cast powerful spells for long-range attacks. His ambition is to gain control of Akabha, but rather than fight his way up the greasy political ladder, Ali has opted to marry the Sultan's five daughters.

While the first episode is available free, four of the next six instalments – which are monthly – are already out, with the November and December set to complete Ali's story. Intriguingly, from then on the developer is letting *Arabian Nights'* players influence the course of the game. By obtaining user feedback (via forums and email), the plan is to alter the storyline in accordance with the public majority. A democratic, and possibly revolutionary, method.







It may come as a shock to some, but despite its episodic nature, the Internet-delivered *Arabian Nights* is actually a reasonably accomplished 3D adventure, displaying better structure and playability than some recent releases. How the user-influenced plot will develop after the first six monthly instalments is a rather interesting proposition

Guilty Gear X




Format: **Dreamcast**
Publisher: **Arc System Works**
Developer: **Sammy**
Origin: **Japan**
Release: **December 7 (Japan) TBC (UK)**

Sammy manages to convert the coin-op success story that is *Guilty Gear* into a Dreamcast winner, proving an unmitigated crowd-puller at the Tokyo Game Show

This was just a mildly disappointing PlayStation 2D beat 'em up to begin with, but *Guilty Gear's* popularity rocketed after its Naomi arcade revamp. Now it's more popular in Japan than its SNK and Capcom rivals, never more apparent than at the Tokyo Game Show, when crowds gathered round the Sammy booth to see both the Dreamcast conversion and the WonderSwan's *Guilty Gear Petit*. Rather than innovation, its popularity comes from the well-balanced fighters, a spectacular blend of 2D and 3D effects, and its flawless anime style.

The simple one-on-one dynamic is enlivened a little by the tension gauge, similar to *Streetfighter's* hypercombo gauge, which enables the player to perform special moves. It fills when attacking moves are employed, but decreases with every block. The gathering combination is one of the special combos that can be executed when the bar is at strength, but it can also be used for defensive purposes. The Roman cancel stops an opponent in his tracks, and the fortress defence provides protection from a wave of attacks. However, in terms of structure *Guilty Gear X* offers few surprises, featuring the Arcade, Survival, Training, and Vs modes now standard for the genre.






The special moves, animated with a blend of 2D and 3D effects, are one of *Guilty Gear's* strong points. Their strength depends on the tension gauge, which increases with every player attack, but decreases on defensive play

Goemon

Format: **PlayStation2**
Publisher: **Konami**
Developer: **In-house**
Origin: **Japan**
Release: **December 21 (Japan) Q3 2001 (UK)**

Konami moves Goemon on to the next generation, as the blue-haired wanderer embarks on a platform-heavy RPG accompanied by a sagacious tiny white tiger





Goemon's visual feel is still decidedly cutesy, despite apparently losing some of its personality in its leap to next-generation hardware. The new emphasis on platform skills is particularly obvious during Goemon's rooftop exploration

A year before *Metal Gear* arrived on the Famicom, Konami released *Ganbare Goemon*. Sequels on the Super Famicom, the PlayStation, and the N64 came and went with varying success; now, 14 years later and a year before Solid Snake returns on PS2, *Goemon* is also set to rematerialise.

Though the title is similar to the last incarnation on the N64, it seems that this time round *Goemon* will feature a stronger platform emphasis in tandem with its RPG aspects. There are items to collect, shops to visit, and people to meet, with all actions performed with a single button. Battles, too, are simple and arcade in style. Regulars to the series will recognise the departure of Goemon's friend, Ebisu, replaced by a tiny white tiger who provides the player with help and advice.

Stylistically, *Goemon* is underwhelming. The Japanese theatre-style visuals from the last version are gone, and with them much of the game's distinctive charm and personality. The 3D world is basic, with textures failing to advance significantly on those seen in the N64 iteration of the title. Animation, too, appears somewhat lacking in quality, but with the title's development yet to be completed, there's still ample opportunity for Konami to improve *Goemon*.





Silent Hill 2

Fog enveloping a small town holding an unwelcome surprise around just about every corner. Enemy creatures that make you stop and stare before briskly attempting to bring about their demise. It can be only one game, and Edge has been exploring the sequel with its creators

A sequel to one of the most genuinely unnerving PlayStation games to come out of Japan was inevitable, and **Edge** was recently invited to meet up with four of the key creatives behind this most macabre of projects – **Akihiro Imamura** (director), **Takayoshi Sato** (CGI director), **Masashi Tsuboyama** (art director), and **Suguru Murakoshi** (designer) – to discuss the future of survival horror.

Have you retained the original team responsible for *Silent Hill*, or has new hardware meant new staff?

Takayoshi Sato: Well, most of the team is based on the one which worked on the previous *Silent Hill*. Of course, a few changes have been made. I'd say in total there are around 30 people working on this game.

Akihiro Imamura: Yes, most of the team is the same. There has also been some help from outside, but only for specific periods of development.

TS: In the first *Silent Hill*, I was the sole person in charge of the CG movies. Now I'm based in the US, in a CG studio owned by Konami, and I have three staff working with me.

AI: Overall, we had to increase the number of people in the art and the programming sections of the project.

When did work start on *Silent Hill 2*, and why did you choose to develop it for PlayStation2?

AI: We started around a year ago.

TS: The first episode was a success, so when we decided to make a sequel, we had to consider the available platforms and also think about what *Silent Hill* could become, using the available new technologies.

AI: Yes, we touched the limits of PlayStation in the field of 3D in *Silent Hill* – it was quite advanced at the time. So, any sequel was set for a next-generation system. In fact, we had no choice at that time. The only new console we knew about was PlayStation2. Nintendo's GameCube was still at the rumour stages, and Microsoft had not yet announced its console project. As we didn't have a lot of time to make our move, we decided to go for PS2. I shouldn't tell you this, but an additional factor was a wish from the business section that we move rapidly on PS2. You know, it is the currently the market focus.

Looking back into the fog

How does *Silent Hill 2* relate to the first episode?

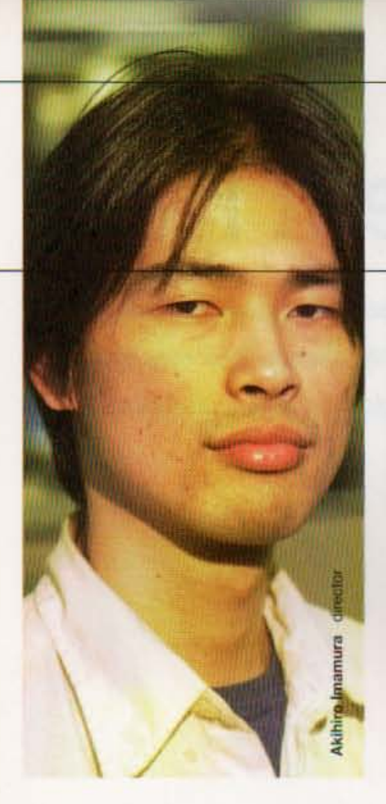
AI: The only link is the town itself, *Silent Hill*. Other than that, it is a brand new story, a brand new adventure. You may come across a few locations which were present in the first episode, but that's all. As PS2 is able to do much more than the first



Format: **PlayStation2**
Publisher: **Konami**
Developer: **In-house (KCET)**
Release: **TBA**
Origin: **Japan**

Photography: Hiroki Izumi

"I shouldn't really tell you this, but an additional factor was a wish from the business section that we move rapidly on PS2. You know, it is currently the market focus"


Akihiro Imamura director

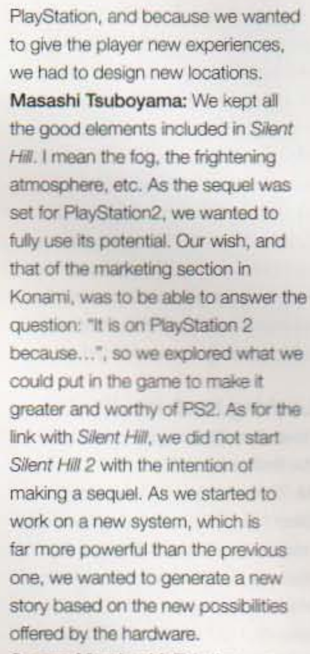

Suguru Murakoshi d




TakayoshiSato CGI director


Tsuboyama art director

"You should experience horror visually, but also through sentiments. We have included many elements in the game to deliver the maximum impact"



PlayStation, and because we wanted to give the player new experiences, we had to design new locations.

Masashi Tsuboyama: We kept all the good elements included in *Silent Hill*. I mean the fog, the frightening atmosphere, etc. As the sequel was set for PlayStation2, we wanted to fully use its potential. Our wish, and that of the marketing section in Konami, was to be able to answer the question: "It is on PlayStation 2 because…", so we explored what we could put in the game to make it greater and worthy of PS2. As for the link with *Silent Hill*, we did not start *Silent Hill 2* with the intention of making a sequel. As we started to work on a new system, which is far more powerful than the previous one, we wanted to generate a new story based on the new possibilities offered by the hardware.

Suguru Murakoshi: This time, we have done a lot of hard work on the graphics. This isn't only from a visual perspective, but also on the feeling aspect as well. Looking at *Silent Hill 2* you should experience horror visually, but also through sentiments. We have included many elements in the game to deliver the maximum impact, and I think we have made something which will compete with any other media, such as movies. Of course, we haven't neglected the gameplay side. You know, there are so many products with great visuals but nothing inside, which means they don't have any balance. But I don't want people to say that *Silent Hill 2* is only graphics – we also worked hard to raise the gameplay to the same level.

Horror stories

How does the story work?

AI: Once again, we have developed quite a strange scenario. There is a man who is the main hero of this game. His wife died and he is now alone. He has just managed to restart his life after a long period of pain, when he receives a letter from his supposedly dead wife. She asks him to come to Silent Hill where she will explain everything. So, the man rushes to the mysterious town, and then the story starts.

TS: It is very much like a movie.

What is the underlying concept behind the gameplay this time?

TS: We almost kept the very same concept as the original. There was little need for dramatic change in the game concept, which was already advanced. It was all 3D with, I think, well-adapted gameplay.

AI: Yes, everything looks very similar. You control a character in a 3D world who seeks clues about a dramatic event. As the hero encounters enemies, he has to survive, fight in an action mode, and find the truth hidden in the town. Using PS2 power, we have been able to bring the game to new levels. We have been able to include more realistic visuals and design more frightening situations.

What elements of the title do you feel justify the development of the game on PlayStation2?

TS: PS2's visual potential offered us sufficient power to design more horrifying situations and gives the game a 'soul'.

AI: Yes, in the first episode, we used the fog to combat the technical limitations of PlayStation. However, it was also designed to reinforce the atmosphere of the game, and as a result we chose to retain this feature in *Silent Hill 2*. The fog gives the game a terrifying feeling. Forms appear and disappear. You have a limited perception of the surroundings. Now, in addition to this fog, the high reality






The prerendered sections of the original *Silent Hill* are, of course, the stuff of legend, and the sequel promises to deliver even more impressive sequences. A team of four artists worked on around ten minutes of sinister footage.

of the some visuals delivers more impact. That concerns the backgrounds and the monsters, which reach new heights of visuals and animation.

Embracing new hardware

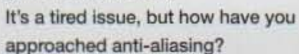
Have you encountered any hitches during development?

AI: Yes and no. We had to fight against the hardware limitations of the first PlayStation to make *Silent Hill* run smoothly. On PS2, we had all the hardware power we needed, but we had to explore its first, and we had no idea how far we could go. As a result, we made several attempts. Moreover, we had to define our own limits at a certain time, as if not, *Silent Hill 2* would have been delayed.

TS: In CG terms, working with PlayStation2 was easier. The total length of the movies is similar, from seven to 10 minutes. The remaining movies are in realtime. PS2 power is sufficient to offer great quality movies. For the first *Silent Hill*, I was working alone on the CG movies, and it proved extremely hard work. This time it has been easier.

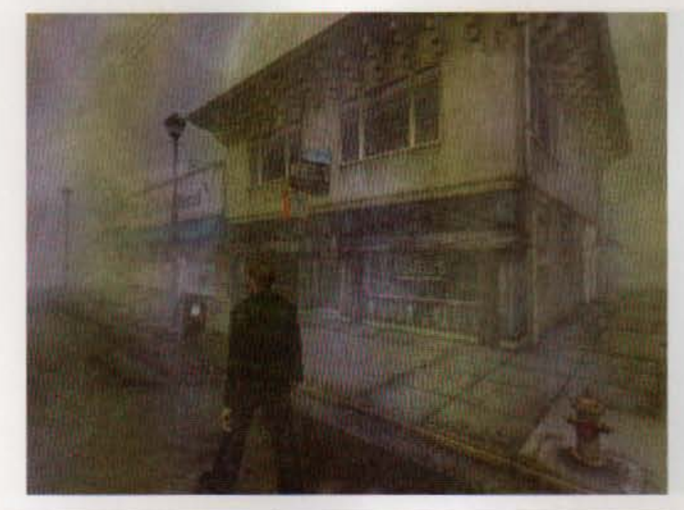
MT: The most difficult thing from my perspective was to be able to deliver a perfect representation of what Silent Hill is. Even with much more power available and the possibilities with PS2, it was vital to define a line whereby we could describe the game atmosphere perfectly. It is difficult to express an idea or feeling in words, so sometimes we had to watch movies, read magazines, and identify any visuals which would fit with the project. Plus, if you consider there are about 30 people in our team, you can imagine how many different visions of Silent Hill we had to consider, which proved extremely difficult.

SM: Me? Difficulties? There were many. So many I don't think I could list all of them. It would take a long time, but there was one in particular. For example, let's say we can now work with ten times more polygons than the former PlayStation. Great, but you have to consider also the other aspects. I mean the textures, the animation or motion, etc. If you don't take care of the overall balance of your game, it would be nonsensical, and you would merely have ten times more polygons full stop. What would be the point of that? If you take only in count the graphical aspect of the game, then people will say: "Okay, there are more polygons, so what?" Yes, it is harder to work with powerful system, since you have to upgrade every aspect of a game's development.



It's a tired issue, but how have you approached anti-aliasing?

AI: The game doesn't support full-scene anti-aliasing. The only way to generate the impression of anti-aliasing would be to study every scene of the game and design filters in order to make the visuals smoother, which wouldn't be true anti-aliasing. It's too bad the hardware doesn't deliver this as a matter of course.





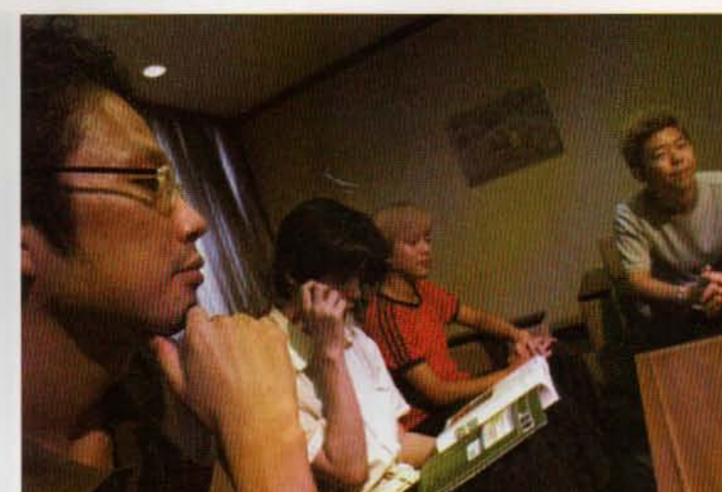


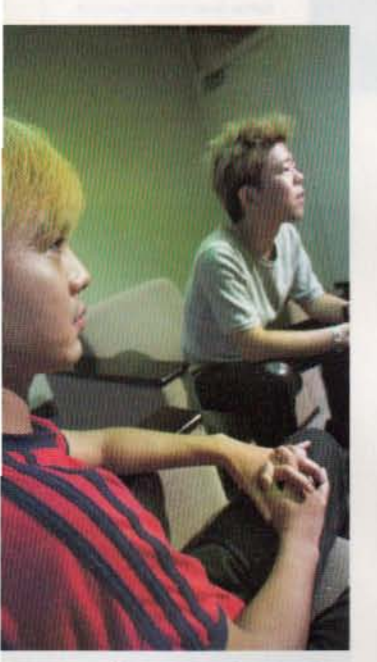
There will be more human-esque enemies in the sequel. And, of course, human beings. Unless this is some horrific illusion (above)





Fog remains an integral element of the game, although Konami insists that its inclusion this time around is for artistic purposes only. The town of Silent Hill had to be built and rebuilt as the developers explored PlayStation2





The core of the team is made up of staff responsible for the first game, even though *Silent Hill 2* did not begin life as a sequel

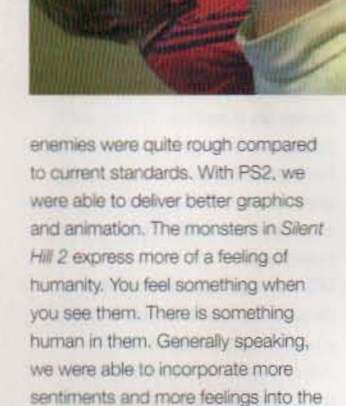
Creating new forms of evil

What elements of the game are you most satisfied with right now?

MT: Given the difficulty I had with the art design aspect, I can say that I'm lucky that our team includes a great group of designers. They all have a good artistic sense and a high level of skill, so I had to take care to not stifle that potential. I think we managed to fulfil that potential and deliver a great atmosphere through *Silent Hill 2*.

SM: With the dramatic increase in power, we were able to design some unique monsters. You will never have encountered any creatures like ours in any other game. The animations are also quite cool.

MT: Yes, monsters are far more impressive than in the previous *Silent Hill*. With the power of PS2, we were able to improve the graphics, but above all we could generate a greater impact. Due to the hardware limitations of the first PlayStation, enemies were quite rough compared to current standards. With PS2, we were able to deliver better graphics and animation. The monsters in *Silent Hill 2* express more of a feeling of humanity. You feel something when you see them. There is something human in them. Generally speaking, we were able to incorporate more sentiments and more feelings into the game. That greatly reinforces the game atmosphere.



TS: I set out to not disappoint people who liked the CG movies in the first episode. We had some great feedback from them. I think I have been able to deliver something even better for the sequel. Plus, the machine is very powerful, and even the realtime movies are good quality. This is a good thing, compared to the first *Silent Hill*, where the contrast was too pronounced due to hardware limitations.

AI: I think we have been able to deliver something enjoyable in *Silent Hill 2*. We faced many problems, as it is the first time we worked on PlayStation2. It has been very instructive, and this will help greatly for future projects. I hope people will like it. Of course, it is still hard to get the full impact, as current demos only show the game at an early stage. Indeed, we could only show an early video at the Tokyo Game Show. When everything comes together, we'll have something great.

Are there any similarities between PS2 *Silent Hill 2* and the planned Game Boy Advance version?

AI: Only in name. The GBA version is a conversion of the first episode in a novel, adventure-style game.

How different would *Silent Hill 2* be on GameCube or X-Box?

AI: We haven't had any access to those new consoles yet, so we couldn't tell you what would be different. I hope we will be able get access to kits soon.

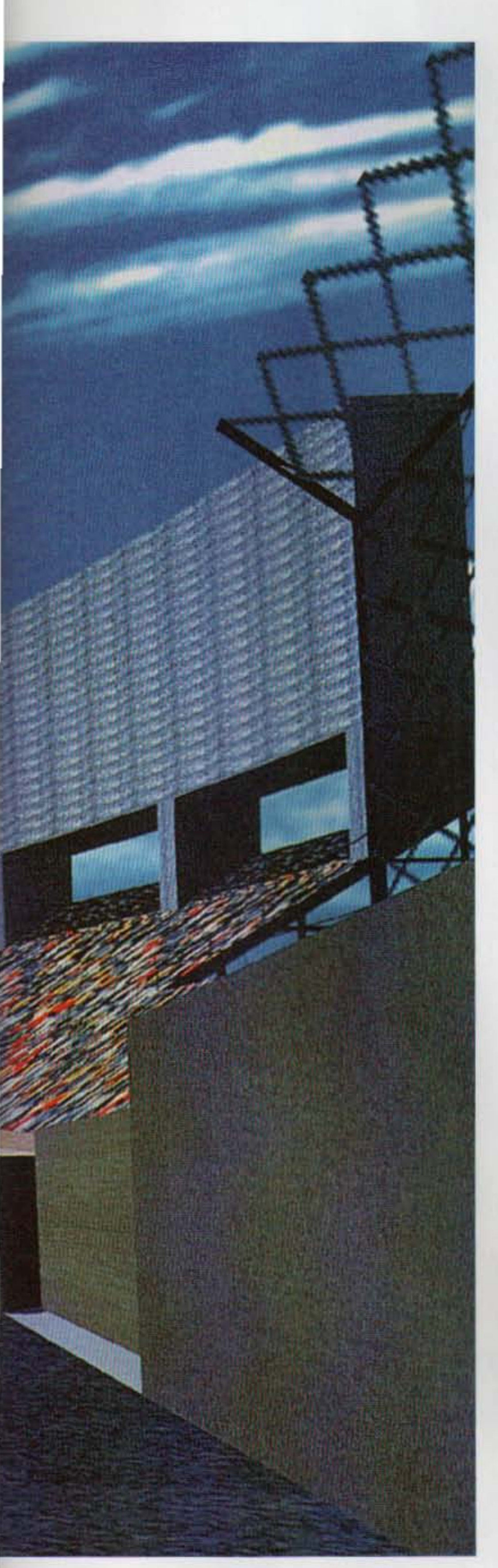


Has grime ever been so realistically depicted in a videogame? This scene (right) typifies the attention to detail at work in the game. Konami isn't yet showing enemies, but promises some shocks






DAYTONA
USA



Daytona USA

For the third issue running Edge meets up with Amusement Vision's Toshihiro Nagoshi, this time to talk about one of the company's biggest challenges to date – bringing to Dreamcast an authentic rendition of one of the most revered coin-ops in gaming history

When Sega demonstrated its forthcoming DC titles at the Empire Cinema on Leicester Square on ECTS weekend, the footage that did most to whet the appetites of Sega fans was a glimpse of *Daytona USA* running on Dreamcast. Despite its age, this blend of arcade racing and driving realism still commands attention in any arcade that still features the unparalleled joys of its eightplayer link up. Even considering its disappointing history of home conversion, the prospect of a port which lives up to the coin-op has engendered widespread anticipation.

So it is remarkable to think that **Toshihiro Nagoshi**, who was the director of the original coin-op version, and who, as president of Amusement Vision, is now responsible for the Dreamcast translation, wasn't optimistic about the title's chances of success first time around. "I was surprised when *Daytona USA* was a hit," he explains. "No one thought it would be. Back when we designed Model 1, *Virtua Fighter* was the first game ever to simulate the human body. When we decided to design Model 2, it was in order to add texture to the polygons so that it would be possible to design realistic 3D. I was at AM2 at this time and we had to find a launch title for the system. I thought it would be great to make a fun 3D





Players will be able to customise vehicles, although it's not yet known whether they will be able to share them with other *Daytona USA* fans via the Internet

racing game, but people said that the game would not succeed because of the emphasis on fun. Model 2 should have simulated reality through a virtual 3D world, but *Daytona USA* had an obvious arcade element."

Perfectly balanced

Despite the limited number of units prepared in anticipation of a small-scale launch, *Daytona USA* went on to be a sensation the world over, specifically because of its emphasis on enjoyment. "I think it was the perfect balance between realistic graphics – for its time – with a great

Format: **Dreamcast**
Publisher: **Sega**
Developer: **In-house (Amusement Vision)**
Release: **December 21 (Japan) TBC (UK)**
Origin: **Japan**

Photography: **Hiroki Izumi**



Sega's greatest ever achievement?

Daytona USA, even today, some six and a half years after its first appearance amidst Japanese society, remains one of the greatest arcade racing experiences. What it may lack in handling complexity by today's standards it makes up for with superbly crafted game dynamics the likes of which are only arguably rivalled by stablemate *Sega Rally*, the third of the company's splendid polygonal trilogy (*Virtua Racing* being the first). Eightplayer setups have produced some of **Edge**'s most memorable coin-op moments and to date no other form of arcade multiplayer racing has proved as enthralling and magically captivating. A far cry from its original five-per-cent-complete prescreen appearance back in **E**7, indeed.

amount of fun. I don't see the need for a game to be too realistic, because if it was truly realistic, it would be too difficult to play. *Daytona USA* was a good experience as a racing game and as a videogame at the same time. Now, it is very hard to find the game for purchase. If you want to get your own cabinet it is quite difficult even after all these years. Many operators are just keeping hold of their *Daytona USAs*. According to them it is essential, and it is important for them to have one cabinet in their arcade. I was so surprised."

But for those who don't have the time or money to search out a cabinet, Dreamcast hardware should at last provide an adequate platform for domestic consumption of what Nagoshi-san sees as the definitive instalment in the series. "While I was producer on *Daytona USA 2*, I did not direct it. I did on *Daytona USA*. *Daytona USA 2* was the occasion for me to put forward new people, new talents. For me the original version appeared clearly as the best choice."

Which means memories of inadequate ports can be laid to rest. Despite its **Edge** rating of eight out of ten back in issue 21, the Saturn incarnation of the title was handicapped by poor draw distances and substandard frame rates, which conspired to undo the original's handling, and was ultimately overshadowed by both *Sega Rally* and *Ridge Racer*. A remixed version released the following year did little to reverse the title's fortunes. But the



forthcoming release promises more than just a straightforward conversion, as Nagoshi-san explains: "The versions are quite similar as the Dreamcast port is based on the original *Daytona USA*, but we have added few novelties. First, there will be new tracks in addition to the originals from *Daytona USA*. We designed them in order to offer a complete choice of driving situations so the experience should be complete. There will also be hidden game modes and vehicles and numerous game modes, though I can't reveal all of them since I would like some surprises to remain. It is also possible to customise the car in various ways, from influencing the car's behaviour to its appearance – colour schemes, logos, and the like."

Increased competition

In addition to these extra tracks – five on top of the original three, all eight of which can be raced in mirror mode – there are the requisite 40 cars on the track. Nagoshi-san is keen to highlight the improvements over the arcade version: "It is possible to set the number of cars on the circuit from 20 to 40, with no slowdown and the whole thing running perfectly. The cars are much more detailed than in the original, especially inside, and deform when they are hit. There will be a choice of five cars at the start of the game and players will be able to access new ones later in the game."

Of course, none of this will matter if the original gameplay recipe is tampered with, but you can rest assured that this isn't the case. "People may be surprised by the



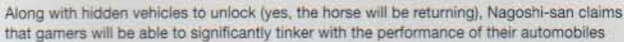


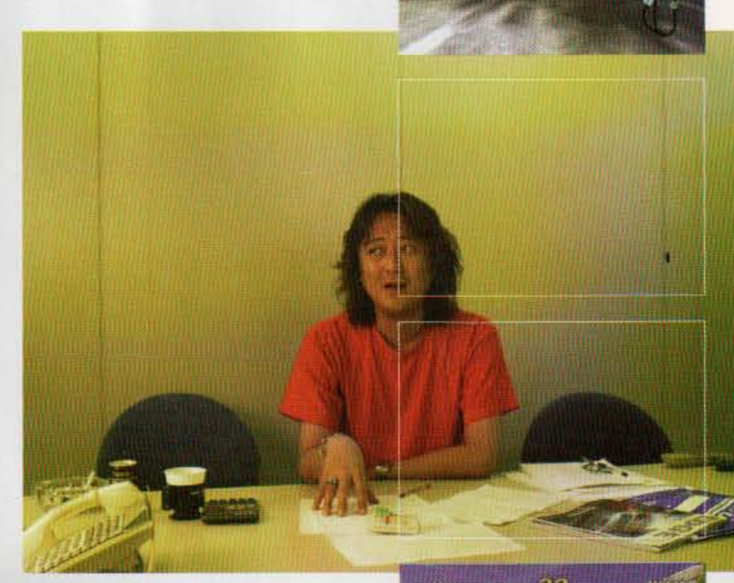
Just a cursory glance at the main shot on this page will be enough to convince Dreamcast owners that Amusement Vision is paying attention to detail with its conversion



One of Nagoshi-san's boldest claims concerns the amount of cars available to race: a full complement of 40 is promised, with absolutely no graphical performance problems




Along with hidden vehicles to unlock (yes, the horse will be returning), Nagoshi-san claims that gamers will be able to significantly tinker with the performance of their automobiles



"I think *Daytona USA* was the perfect balance between realistic graphics, with a great amount of fun. It was a good experience as a racing game and as a videogame"

games are the future. They will continue to improve and offer more realistic experiences." Innovations such as Sega's networked entertainment suites provide some indication of the direction such improvements will take. "Graphics will improve and physics models as well, but, you know, 3D racing games remain 3D racing games. Unless cars change, games will be pretty much the same. My guess is that online play will be a good advance. It is now nearly impossible to find eight linked cabinets like before, when *Virtua Racing* and *Daytona USA* were released. There were even projects for 16 cabinets to be linked, though even then there weren't many arcades able to make such a huge investment. With networks, it makes the whole concept viable again."

It is strange to hear the figure responsible for one of Sega's most successful racing games sing the praises of a certain plumber, but Nagoshi-san defies expectation when he describes the game that currently occupies most of his time: "*Mario Tennis* is once again an illustration of Nintendo's skill in game design. The game is fun and controls simple. You take the cartridge and put in the console port and that's it. You only have to put the system on and you can play immediately. Controls are simple, and if you want to access more advanced moves, you can refer on the quick reference card. If you require very advanced moves, there is then the manual." But it is precisely this formula of a well-structured learning curve that offers an easy introduction to a more intricate repertoire that is at the heart of the *Daytona USA* experience, and which looks to have been transferred intact to Dreamcast.







Sadly, the original music will remain in this Dreamcast conversion. One of these days **Edge** will get around to asking Nagoshi-san about Sega's dogged penchant for poodle rock

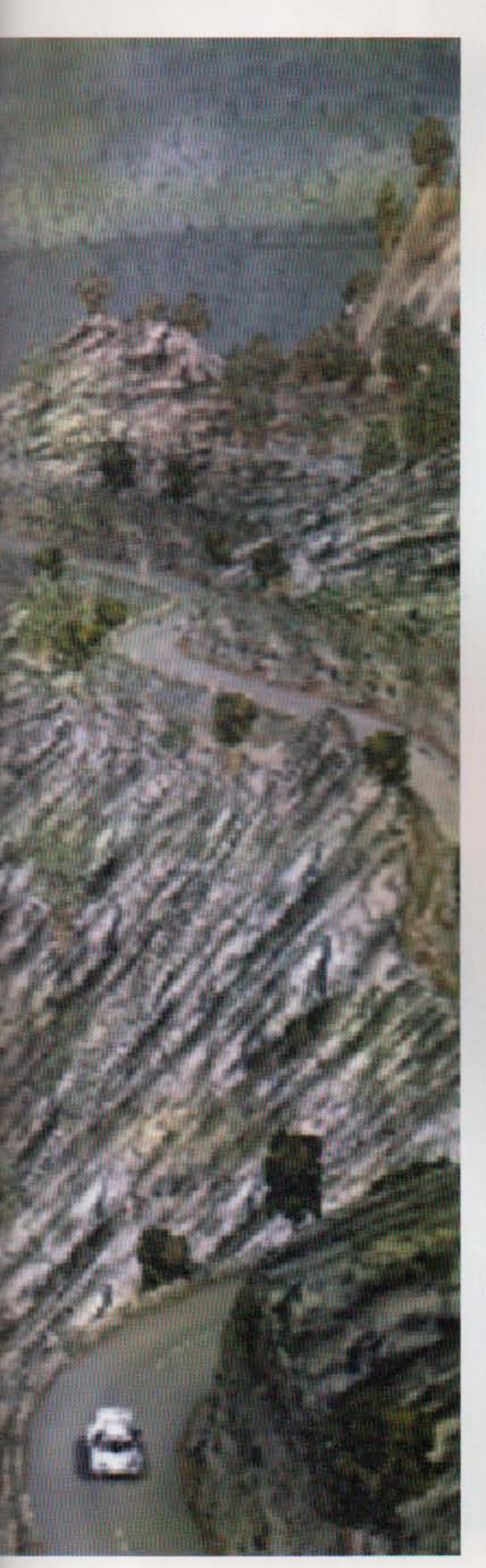












WRC 2001

Set in the countryside surrounding Runcorn, Evolution Studios has a point to make. Every WRC car, every WRC driver, every WRC stage, and every last snowy peak of the Swiss Alps. Edge tightens its six-point harness and makes for the mud with MD Martin Kenwright

World Rally Championship 2001 (formerly *Evo Rally*), is the videogame equivalent of an oxymoron. On the one hand it is the most ambitiously detailed and reality-based rally game to date. On the other, it demonstrates a thoroughly 'pick up and play' nature, combined with all of the superficiality associated with the average coin-op experience. Co-ordinating this delicate mélange is **Martin Kenwright**, Evolution Studios' managing director. Formerly chief of DID, the accomplished developer with substantial military simulation experience, Kenwright left the company after it was acquired and subsequently dissolved by industry giant Infogrames back in 1999. At the time, **Edge** met Kenwright in a hip LA hotel suite where he was showing a very impressive rally demo running on PC architecture. Some 17 months later, the demo has turned into a game, now under Emotion Engine management.

Real men love mud

"Real men love mud." Not, as you're perhaps wondering, an invitation to the local mud-wrestling joint, rather Kenwright's split-second retort when asked to explain his company's specific choice of motorsport activity. He does, however (and thankfully), expand on his proclamation.

"In terms of driving experience there's nothing more unpredictable or more frightening than screaming along on a few inches of mud without any barriers, without any safety whatsoever," he says. "I personally have done a lot of track racing, and it's really great if you do one overtaking manoeuvre in maybe one hour – you've done your best, and the next best thing you can hope for is someone spinning out with a bit of crash and a cheer. And it's all very good, it's all predictable, but to me it can become fairly repetitive. Once I've done a lap of a track I want to drive out of the stadium, down into the local town and then head up into the countryside.

Computers, Kenwright argues, set



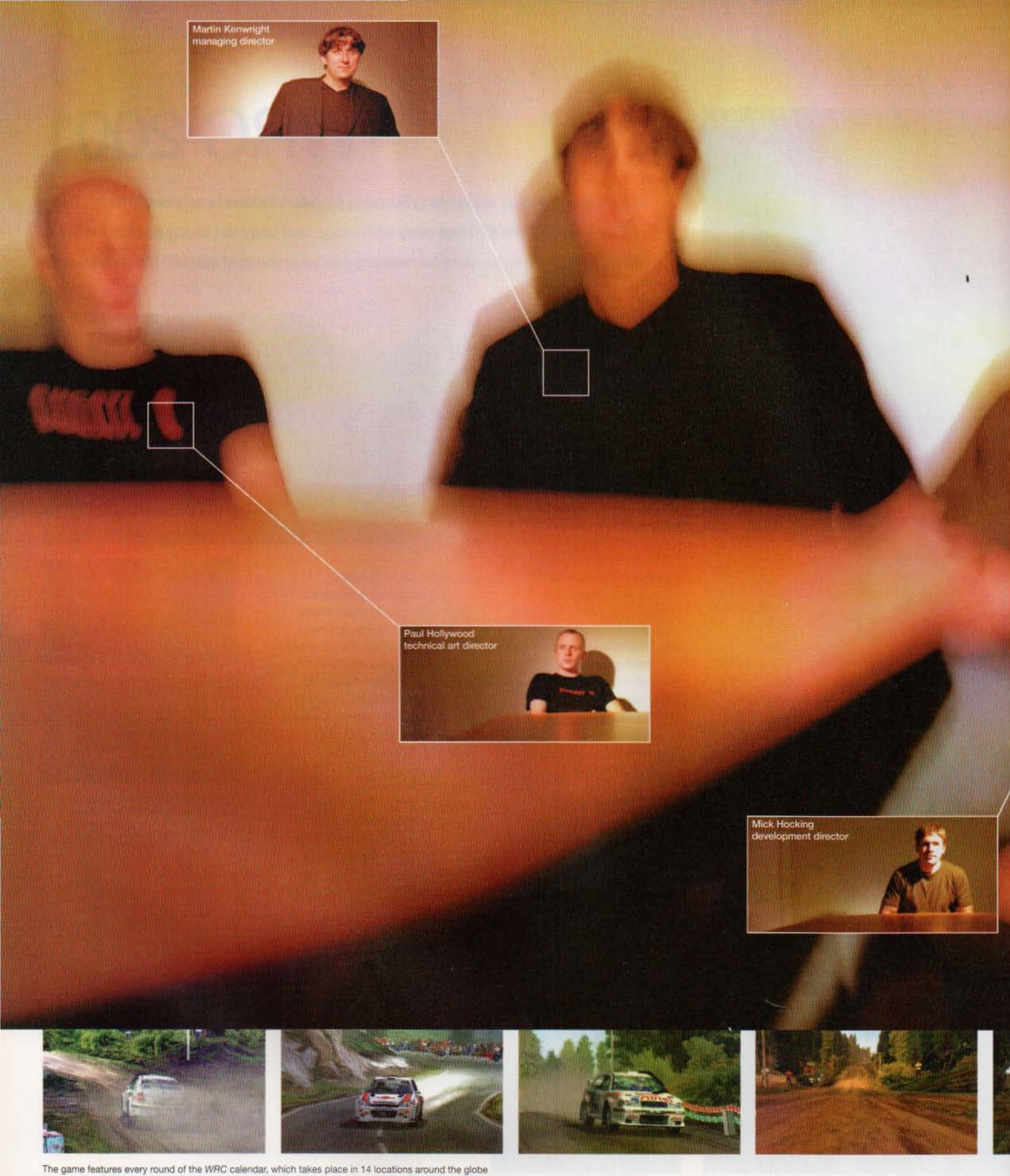




The spectators are motion-captured, and stand around waving their arms, cheering and invading the track, though marshals clear them before they get run over. Pity

Format: **PlayStation2**
Publisher: **SCEE**
Developer: **Evolution Studios**
Release: **May 2001**
Origin: **UK**

Photography: **Martin Thompson**



The game features every round of the *WRC* calendar, which takes place in 14 locations around the globe and also includes the supersprint stages, though the team is unsure about split-screen options for this

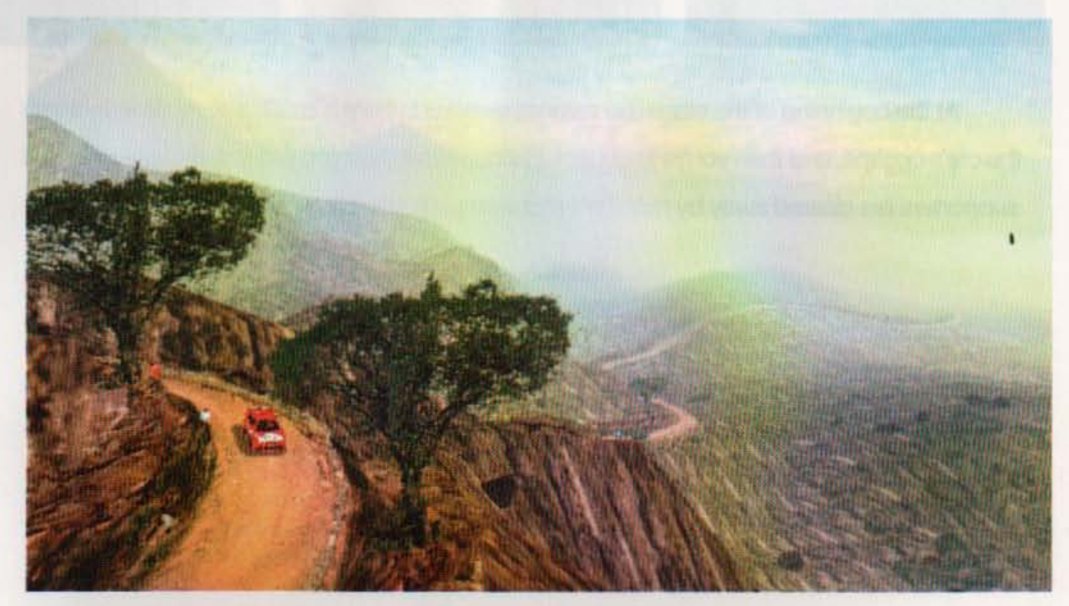
themselves perfectly for this sort of thing, which is why one of the fundamental aspects of *WRC 2001* is freedom: "Up until today I don't think anyone's ever properly emulated a playable and enjoyable entertainment simulation of rallying. It's the decathlon for cars – they can crash down hills, explode or get to the end of the stage destroyed, dirty or really messy. For some reason, no one's ever attempted to do this in a rally. Most people, historically, have created almost a corridor-type effect, a tunnel-vision effect screaming down a track, be it imaginary or real, with no atmosphere, no crowds, no emotion – a little bit claustrophobic."

Taking its own road

So, Evolution Studios has made a point of doing its best to ignore other rally games' interpretations and instead is looking to generate an environment it believes worthy of a true rally game. "Instead of creating a glass tubeway, let's create the Swiss Alps. Instead of bouncing off the rock and coming back onto the track, let's fly over that rock and fall several thousand feet," enthuses Kenwright. "Instead of crashing into a wall and have a spark and a broken window, let's physically tear the car in half or deform it. Let's underpin it with the most mathematically correct driving model and give it really good content and narrative."

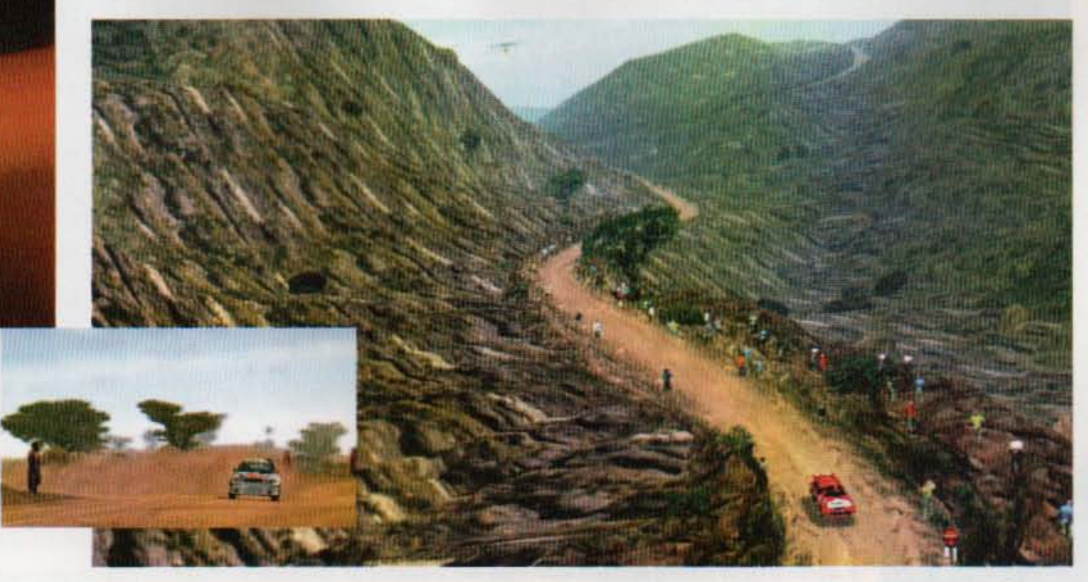
When Kenwright says the Swiss Alps, that's exactly what he means. His previous stint at DID and all of the military simulation work undertaken by the company has resulted in the team being able to use accurate world terrain data for their rallying environments, hence the Helvetian hills. Rather than sticking to the actual existing road networks, however, the team decided to create its own by carving splines over any mountain range, or however pronounced the topography of the 14 international locations' terrain may be.

As it may have occurred to you by now, Evolution Studios is working very closely with the ISC (WRC's governing body), and the various teams to



The game should offer unprecedented levels of draw distance while still maintaining the all-important 60fps update. It's the difference between trying to migrate PC, DC or X-Box code across to PS2 and only using the main processor rather than writing code specifically for the machine

Evolution has made a point of doing its best to ignore other rally games' interpretations and instead is trying to generate an environment it believes worthy of a true rally game. Kenwright: "Let's create the Swiss Alps... let's fly over that rock and fall several thousand feet"



Getting the PS2 to display exactly what the team would like hasn't been that troublesome – PS2 dev kits were only delivered back in February, but as many of Evolution Studios' members were previous Amiga coders, they found the similarities between the systems rather reassuring









At the beginning of the stage the camera swoops in from a satellite-type view right into the car's cockpit, and then you're in control. Helicopters follow you around, motion-captured supporters are cleared away by marshals and wave, whistle, cheer, and blow their fog horns

include every element of the World Rally Championship circuit – the cars, the drivers, the locations, the sponsors, the whole affair.

The game opens with a tutorial that has been designed with the help of the Prodrive (Subaru's rally operation in Banbury), which teaches you real rally techniques and acts as a licence to enter into the main game. The Arcade mode does let you jump straight into one of the championship rounds, but you're not allowed to progress beyond it.

Keeping it (almost) real

Naturally, the main emphasis in on the World Rally Championship. In this mode the game begins to run like a television programme – say Eurosport, for instance. There are exaggerations, of course – at the beginning of the stage the camera swoops in from a satellite-type view right into the car's cockpit, and then you're in control – but most of the time it's all about realism. Helicopters follow you around, motion-captured supporters crowd the way (but are cleared away in time by marshals, by request of the sport's governing body). They wave, whistle, cheer, blow their fog horns, and probably help you get back on four wheels should a ditch end up testing the strength of your car's rollcage. "We followed the calendar for the real WRC and we very much work on the idea of progressing through it," Kenwright explains. "We take into account gameplay issues and learning curves so that people should be able to ease into it very easily, be able to pick it up, but progressively it will become more difficult. And then to kind of underpin all of this – as I said it's a kind of TV type narrative we're running – we want to interject TV commercials in between stages.

"So it really gives you a feeling of progression and narrative throughout. And at the end of all of these you will have the traditional celebrations. But then even after you've won the WRC we allow you to run the game again, and you've got special livery on your car as champion. The tracks will revert to the actual WRC width tracks, so the next time you race it's the true WRC. We basically want you to complete the game and then do the game all over again but with ten-foot-wide tracks and a whole new set of gameplay issues for you to sample."

Top technology

Predictably, the technology behind the project is fairly alarming: drive up a series of switchbacks, handbrake turn yourself around and watch in perplexity as the game engine stubbornly continues to draw the entire valley. Everything within the game world is executed using higher-order surface technology and is generated procedurally in-game, which proves a remarkably flexible way of doing things.







In addition to the car suffering damage in realtime (see box), expect it to get increasingly dirty the further you powerslide into the stage. At service stops it gets repaired and cleaned, though don't expect a huge amount of tweaking as far as car settings are concerned – the team is keen to keep things relatively lightweight and accessible for players, despite *WRC 2001*'s obviously major emphasis on absolute realism



For lunch, Martin Kenwright (right) decided to drive to the local in his Mitsubishi Lancer Evo VI, a car that retains plenty of genetic material from the model multiple WRC champion Tommy Makinen drives at work. Despite being aware of the Evo VI's phenomenal cornering and braking ability, there was still an interesting occurence involving a parked car, a right-hand bend and a speedo topping a ton...

"For each piece of the track we create multiple cross sections of it – different profiles with different textures – and we use a lot of layering effects and seamlessly blend in between them," explains Kenwright. "So we can create an infinite number of profiles and shapes just from a few core textures and outlines. [Tell the level] editor we want to place this amount of density of trees, this amount of density of rocks, and the computer can generate all of that for you – it can lay down hundreds of thousands of trees in a fraction of a second – procedurally generate them. In fact, take one tree shape and we can give it some random noise and they all become different.

"We can create huge strips in a day, light them and populate them, and we're well within the memory capability of the machine. With the technology we have we can decide that track is too thin or too fat, and we can open up 10 or 15 kilometres of track in just a few seconds.

"Imagine something that uses tangents and trigonometry," he continues. "You've got a curved track there [points to screen displaying a bend from Safari track]. Paul [Hollywood – technical art director] can build that from using just four points of data and setting the curvature from it. So a track like this would probably









Evolution Studios is aiming for a televisual feel to *WRC 2001*'s core game – replays focus only on the highlights rather than display the whole stage, and should you save and come back at a different time you get a recap of the action up to that point, taking into account your position within the world rankings. In order to keep things accessible, most of the pit work is done by a motion-captured crew, including the jet washing of your car

Mask of concentration

As in Studio Soho's *The Getaway*, Digimask has been used to capture the features of all of the drivers and their navigators to increase the realism levels. Not much use when you're driving, of course, but the feature should become effective during some of the more adventurous replay angles. And although *WRC 2001* won't allow this, there's already talk of the possibility that a future version will allow you to input your own face (or anyone else's, for that matter), courtesy of a digital camera set-up hooked up to your PS2.









As you'd expect, the driver models are fully animated: they steer, change gear, and whatever else a rally driver has to do, while navigators will comment on your driving in realtime. The cars themselves have around 70 hierarchical links in them (around twice that of a character in a beat 'em up), the brake calipers close on the discs (which glow red), the suspension arms compress, and all of the body panels are individual entities

Body form

Naturally, no rally game is complete without damage, and this is yet another area Evolution Studios hopes to take to new levels. The amount of deformation that can occur when things go wrong while you're out on a stage is still to be decided at this stage, though expect some very satisfactory dents, realistic bonnet crumpling, windscreen shattering, and other damage on a more comprehensive scale than previously seen









take a few megabytes to build – in fact, 10Mb to build using the normal method, but our system allows us to do it in about 10Kb." Cue implications for online playability.

It doesn't just stop with the tracks, of course – the cars are the same. Whereas, conventionally, a vehicle is made up of 100,000 polygons taking up several megs of space, Evolution Studios has curved-surface models using one-hundredth of that amount.

Frustratingly, at the time of **Edge**'s visit the handling models aren't ready.

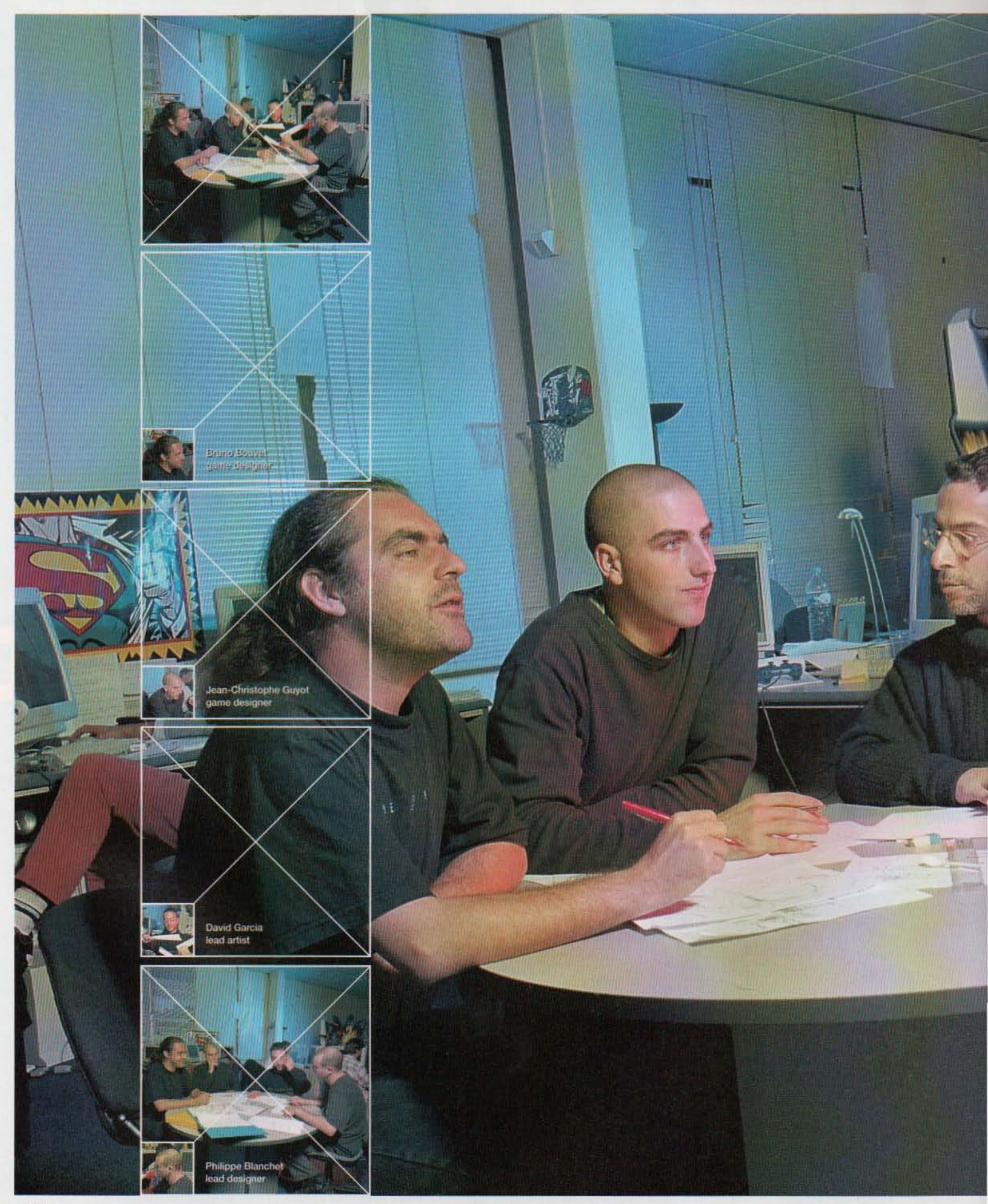
The ambition from the 12-strong team is evident, the technology is certainly there, and the game's structure appears sound. With the right handling physics, Evolution Studios could end up developing the most authentic and comprehensive rally videogame to date

Unsure as to which route to take, the team has built four sets of dynamics. "We've built a mathematically perfect modelling system, but the thing is, with all the traction and the friction it doesn't feel like *Colin McRae*," Kenwright reveals. "And we've got one like *Colin McRae*, which is another way of doing it. It's good, but it's not as good as the system we've got, and what we're trying to do is to nick the best bits from the different models and end up with one that is always intuitive – it always does what it's supposed to do. So we're just going to tweak and tweak and tweak until it's right."

Eyes on the prize

There's still an awful lot to do between now and the game's proposed release, of course. Yet the ambition from the 12-strong team is evident, the technology is most certainly there, and the game's structure appears sound. With the right handling physics, Evolution Studios could disappear into the distance with the most authentic and comprehensive rally videogame to date.

"We will challenge people to try and pick holes in the reality of it," Kenwright says, defiantly. That was the sound of a gauntlet being thrown down.

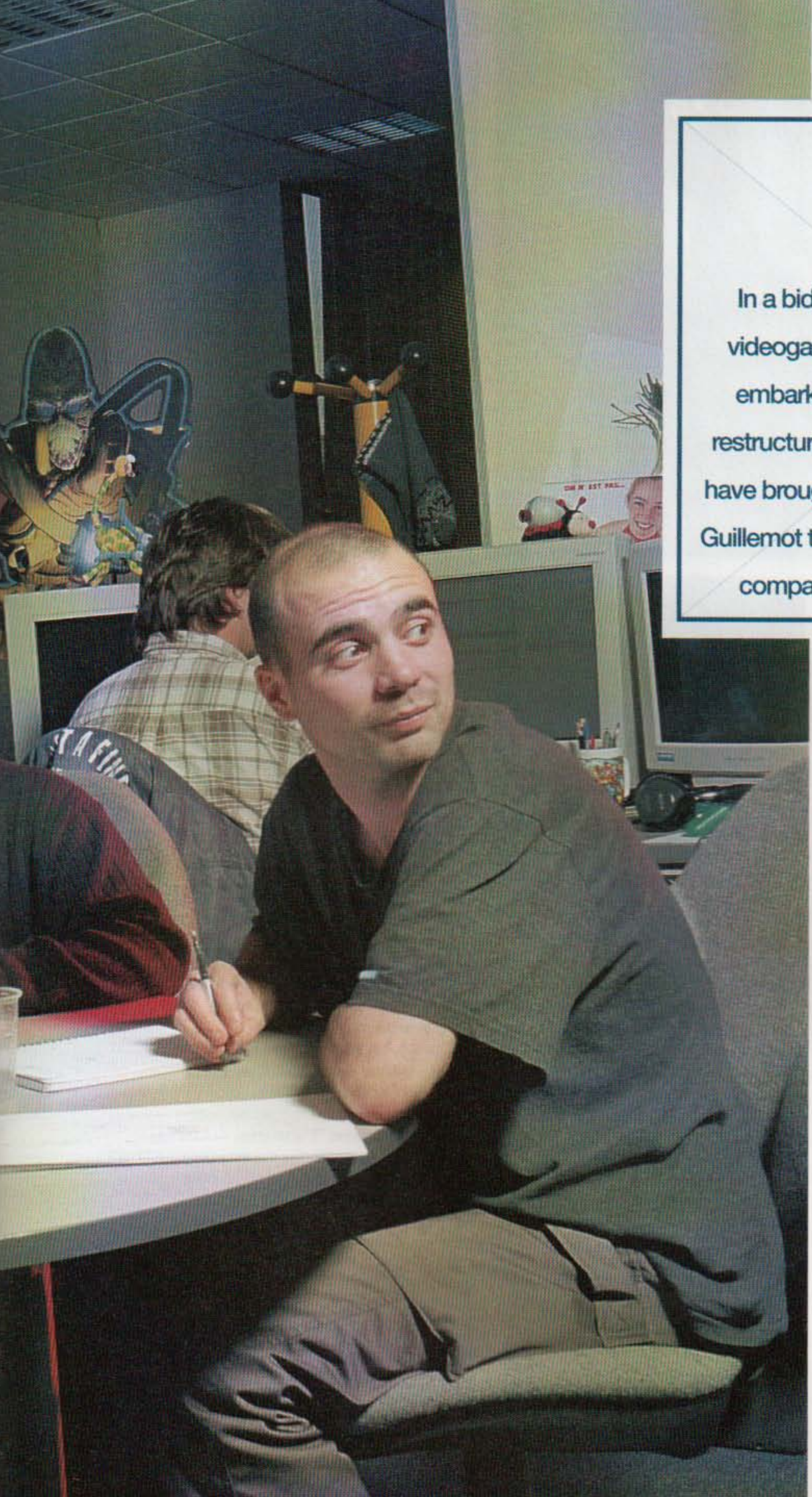


Bruno Bouvat
game designer

Jean-Christophe Guyot
game designer

David Garcia
lead artist

Philippe Blanchet
lead designer



Inside...

Ubi Soft

In a bid to establish itself as one of the top five videogame publishers in the world, Ubi Soft has embarked on an ambitious course of buyouts, restructuring, and rethinking the very premises that have brought it so much success to date. CEO Yves Guillemot tells Edge how he is going to transform his company, securing its future at the same time

The console war is about to enter a new phase with the might of Microsoft coming into the fray to take on Sega, Nintendo and Sony. But while this battle rages there are other smaller, yet no less significant, skirmishes happening in the software publishing arena. Ubi Soft has a mission: by the year 2006 it wants to be one of the top five publishers in the world. Currently the company lies just outside the top ten. The French giant has come a long way since the original team of ten established the firm in April 1986, but now it feels the time has come to scale new heights. **Edge** went into the heart of Ubi Soft to discover how it plans to take on the might of EA and Infogrames.

Ubi Soft's impressive new premises in the Montreuil area of Paris prove the company's aspirations. Now housing 550 members of staff with more than 20 titles in development, the French company is set to become one of the largest publishers in the world. Or so it would hope. But the expansion is not just confined to France. Ubi Soft's presence has been strongly stamped in the States following the acquisition of Red Storm, and now means that Ubi Soft is developing games in 18 countries worldwide.

Gaining gamers' respect

Ubi Soft may be responsible for one of the biggest-selling games of all time on the PlayStation, but has yet to win the abiding respect of discerning gamers across the world. Icons Lara, Mario and Sonic may have seen their fair share of success, but Rayman is undoubtedly the Bryan Adams of the videogame world. The original game went on sale in September 1995 and promptly hit the number one spot. The *Rayman* brand has since gone on to sell 6.5m copies for his publisher. And now for another thought: five years on, the











Though the original *Rayman* on PlayStation (top) is not well regarded for its innovation or gameplay it was one of the first games to go Platinum. *Rayman 2: The Great Escape* (centre) tapped into the vogue for 3D and was a more than decent title. *Rayman Revolution* (above) launches on PS2 and brings with it sumptuous environments and a glut of mini-games



original *Rayman* still resides in the top 20 chart, and has been climbing and descending this table ever since.

Yet *Rayman* is still perceived by many as a symbol of all that is mainstream and derivative in the videogame world. Is this too harsh on the cute character which has clearly remained irresistible for so long? "*Rayman* is very well known because gamers had fun in playing the game," argues **Yves Guillemot**, Ubi Soft's CEO. "That's what made *Rayman* successful – the playability of the game." He has a point. The original *Rayman* may not have broken any new ground, but it delivered one of the best 2D platforming experiences when the PlayStation was first launched in Europe.

Beside titles like *Tomb Raider* and *Metal Gear Solid*, *Rayman* looks hopelessly dated, but the question remains: why does *Rayman* continue to sell up to 10,000 units per week, every week, in the UK alone? The answer, perhaps, epitomises Ubi Soft's core values. "Our philosophy at the beginning was to create everything. We thought we could create the engines and the brands and to establish our characters worldwide," outlines Guillemot. 'What we saw was that it was possible to do that and use the new machines to actually create those brands.'

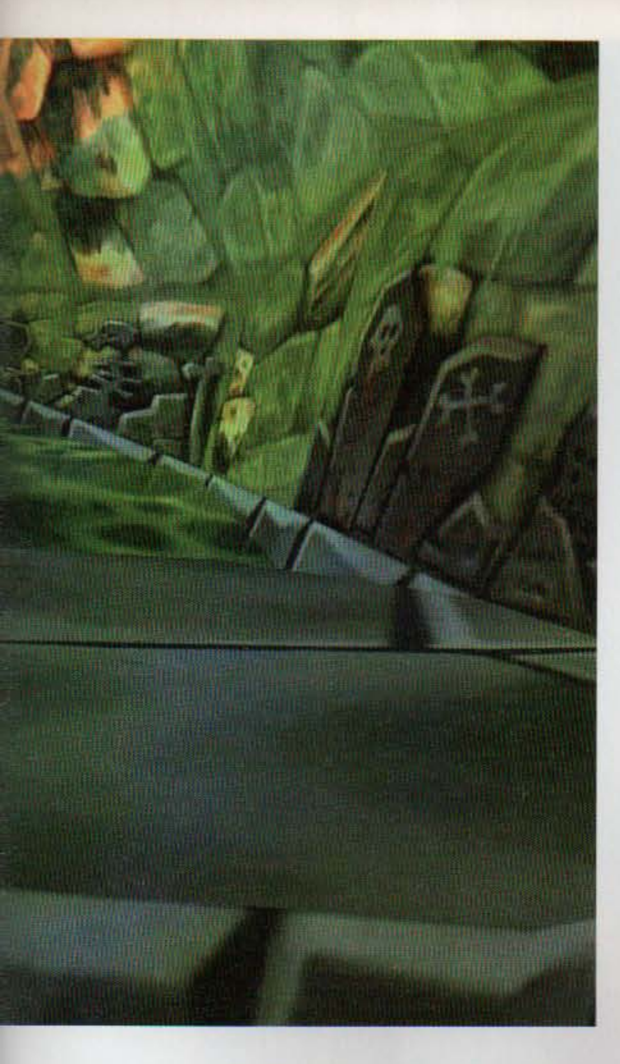
Ubi Soft, a company from the land of Lacoste and Chanel, was quick to understand the power of a strong brand identity. But its quest to create recognisable characters has not always succeeded. "It worked for Rayman," says Guillemot, "but it didn't work for Tonic Trouble. That was very disappointing for us." This was a character which suffered by being too close to its Rayman cousin. It even





F1 Racing Championship (PS2) and *Pro-Rally 2001* (PC) are just two of Ubi Soft's sports titles which it hopes will convince gamers that it isn't just a 'cartoon' company. Early code bodes very well for both games





had the now-familiar disembodied hands and feet. The money invested designing and promoting Tonic clearly hurt Ubi Soft. The company has duly shifted its focus. "We thought it would be interesting to do both now. To create new brands and also to work with brands from other creators," continues Guillemot. "That's why we went to Disney and Warner to actually create products with brands that are known already."

Taking Ubi Soft to the top

Guillemot is clearly untroubled about laying down his views on how to take the company he co-founded into the top five. Now that videogames are more profitable than movies there is clearly a need to tap into as wide an audience as possible, but the CEO also knows this will not be enough. The company has been restructured and clear game divisions established. The company's name – chosen to indicate its ubiquitous appeal – will now truly focus on all areas rather than just the mainstream, as Guillemot explains: "We are not just doing character-based games now; with the acquisition of Red Storm we are going to reach another target which is a little bit different to our usual audience."

Red Storm's capitulation to Ubi Soft's cause cannot be underestimated. It indicates a distinct change of direction for the French publisher. "It's one more target that we didn't address," Guillemot reasons. "It's a particular audience, but it's a large audience. What we saw is that the volumes that are done in this sector are extremely important. We have to have other brands to address all the customers." Ubi Soft has now divided up its properties and it indicates a new way forward for them. Three distinct groups have been formed: Hall of Fame, Sports, and the Player's Club. The Hall of Fame division will stick to familiar Ubi Soft territory and includes titles such as *Stupid Invaders*, *Inspector Gadget*, and, of course, forthcoming *Rayman* titles. The company's sports brands include *Pro Rally 2000*, *POD 2*, and *Carl Lewis Athletics 2000*.

More interestingly, though, is the Player's Club, which has been established to appeal to discerning gamers. Brands include intriguing RTS title *Peacemakers*, *Evil Twin*, *In Cold Blood*, and the soon-to-be published add-on to *Everquest*, *Scars Of Velious*. Those who still believe Ubi Soft is just about pretty graphics and branding should note that this new addition to the persistent world is for level 30-plus characters only.

Some 1,700 people now work for the company, with Canadian and US development teams spearheading the global assault. "What you have to realise is that we are not French any more," notes Guillemot, referring to the fact that sales in France only account for one third of Ubi Soft's revenues. "Also, 65 per cent of our developers are now outside of France. We are situated as a headquarters, but the company is very diversified and we are not a company that produces influenced only by France now."

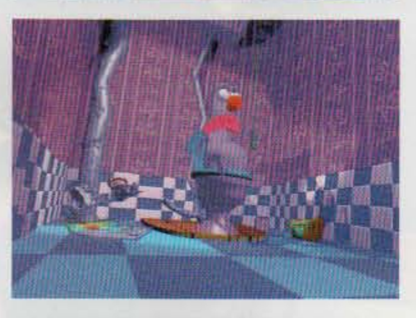
Ubi Soft's business structure certainly appears solid enough. Rather than rely on outside development, production, and marketing, almost everything remains in-house. Even 90 per cent of the company's European distribution is direct and remains within the Ubi Soft fold. This is an unusual model, but allows for complete control over the quality and consistency of everything from the printing of game manuals to delivering the software to the shelves in time for Christmas.

After touring the operation's French development studios, sound lab, press departments, and administrative floors, you certainly get the impression that this is a supremely well-organised company. "We have more than 100 products now in development," asserts Guillemot. 'We have groups to test the different projects and we look at lots of different ideas regularly. We also have a good team of thirdparty developers that look at the quality of the product and the quality of the team that is going to create it. Whether they will be able to get to the end of the project or not is also [assessed] at the beginning."

Ubi Soft now plans meticulously to ensure its products ship on time. Titles rushed in the past have resulted in poor sales. "Our racing









Rainbow Six Rogue Spear (top) on PlayStation looks an unlikely candidate next to Ubi Soft's *Disney Dinosaur* (above). Both titles utilise powerful licences, and clearly tap into very different markets. The aqcuisition of Red Storm sets out the French company's intentions very clearly: it wants to appeal to all of the gamers, all of the time. A diverse product range may be the future of publishing in the industry



Yves Guillemot
Ubi Soft CEO


David Bacquet
sound designer
Manu Bachet
sound designer
Sylvain Brunet
head of sound studio
Stephane Catherine
product manager (marketing)
Caroline Marchant
product manager (marketing)
Emmanuel Carre
PR manager (France)
LucasArts Entertainment Company Présente
LEGENDARY Aircraft
LE MASQUE DE ZORRO
Cluedo
Gold master Hijinks



title *Speed Busters* was not finished when it was launched," reveals Guillemot. "It didn't do as well as we expected. But it has now been transformed into *Speed Devils* on the Dreamcast, and that is now the finished version of the first one."

A hard road ahead

It is clear that Guillemot expects a tough fight if he is to achieve his ambitions. When asked if he believes publishing will become the preserve of a select few, he agrees: "I think there will be ten. But there will be diversity [in games] because the industry is changing constantly. When technology is changing regularly you can't be stable like in the music or film industry."

Ubi Soft is aggressively positioning itself at the forefront of next-generation publishing. Only Konami and EA have more titles on the shelf for the PS2 launch in Europe and the US. "It's just a wonderful time now," enthuses Guillemot. "The capacity we have with this machine is just wonderful and we are very happy we have been able to create good engines that we can use. We have four games ready for launch, and that means our teams are starting new projects which will be available next year. That will be the second generation of PS2, which will be even better."

Rayman's success at the PlayStation's launch in 1995 has clearly left a lasting impression, and the French giant wants to score a similar hit on next-generation hardware. "We are developing on both the X-Box and GameCube. For the GameCube we don't have development kits, but we know what the machine is capable of," says Guillemot. Yet concerns that Ubi Soft is all about tapping into audiences who are happy to go with brand appeal remain. Ubi Soft is somewhat uneasy about *Evil Twin*, for instance. Its darker approach focuses on a different demographic and will need to be marketed appropriately. It is significant that the company's new batch of Player's Club titles are few and its Hall of Fame games numerous. Donald Duck and Rayman may have to support the likes of *Peacemakers* for a while.

But what about Ubi Soft's rivals?

Ubi Soft is aggressively positioning itself at the forefront of next-gen publishing. "It's just a wonderful time now"

"Electronic Arts is really strong and I would say number two is Konami," states Guillemot. "My rivals are really the ones that are the most successful. I also see Square as a company that is doing quality products. So I see them and I think they are the guys I need to do better than." Notably, however, Ubi Soft has yet to deliver a gamer's game to match Konami's *Metal Gear Solid*, Nintendo's *Legend Of Zelda: Ocarina of Time*, or Sega's *Shenmue*. "We do not compare *Rayman* to *Metal Gear Solid*," smiles Guillemot. "We will try to do better games than *Metal Gear Solid* at one point, but that will come in the future."

The only certainty for software publishing is that the new generation of hardware is going to result in even fiercer competition. Is a league of ten conglomerate publishers really the future for the industry? The battle lines have already been drawn.



Peacemakers was Ubi Soft's most ambitious title at ECTS. The military AI has been in development for over ten years and the game vies away from typical RTS titles by including media, who can influence the warfare









From top: *Evil Twin* (PC, Dreamcast and PS2), *Arcatera* (PC and Dreamcast), *Grandia 2* (Dreamcast) and *Dragon Riders* (PC and Dreamcast) all show Ubi Soft's dedication to Sega's flagging system. There is a great deal of love for the machine at the company's HQ, with programmers and team leaders quoting the system as their favourite for both coding and home use. It's easy to understand their passion: Dreamcast sales account for 20 per cent of all Ubi Soft's revenue. These titles also prove the company's growing credentials in the mature market. Yes, they still focus on cartoon-like imagery, but all contain a darker side. *Evil Twin*, in particular, is inspired by the films of Tim Burton and will cross cultural barriers


CD un

dergound



Piracy has long been an issue in relation to videogames, in that once upon a time running off a copy of a ZX Spectrum or BBC title was as commonplace as recording the Top 40 from Radio One. But as the industry has boomed, so have the potential revenues to be made from bootlegging copies of console games. In light of this, and the news that next-gen safeguards have already been cracked, Edge asks the industry and its regulators: what are your attitudes to piracy, and does it pose a genuine threat to the future of videogaming?

ELSPA, the European Leisure and Software Publishers' Association, estimates that piracy cost the UK videogames industry £3bn in lost revenue during 1999. Given that the UK industry grossed approximated £1bn in the same period, it's a sum that suggests piracy is not petty theft or a nuisance, but an endemic threat to an otherwise burgeoning market. **Edge** looks a the murky world of copyright theft, and gauges industry attitudes to piracy.

How does ELSPA calculate its total of £3bn lost to the UK leisure software industry alone in 1999? Given that the US claims a similar sum, with a greater population, and that world business piracy is calculated as having cost £13.1bn worldwide, why

are the figures so high in this country?

"Well, we haven't done any comparative studies on how America is affected in a different way to us," admits **Roger Bennett**, ELSPA's director general, "but the manifestation of piracy in the UK, generally in Europe, tends to be different to the USA. Not that that's the point, of course.

"The way we come to a £3bn figure – that's a retail value, by the way – is based on the fact that for every legitimate copy that is sold, there are ten PlayStation titles, or other format titles, that are being sold, given away, copied or downloaded. We then estimate that, conservatively, even if there are ten people buying or receiving free pirated products, we say that three out of ten would otherwise go and buy that game if piracy didn't exist. So the ratio's about three to one. If the industry's worth around a billion pounds in the UK, then we're losing three sales for every copy sold. I think that's a pretty reasonable analogy to use."

Reasonable or not, there's no doubt, however, that 'professional' pirates – that is, individuals who sell counterfeit games for profit, be it at markets, pubs or suchlike – are making a killing.

What is the common perception of professional software pirates? With many people, the stereotype that immediately leaps to mind is that of the archetypal 'dodgy geezer'. You might see their face and shape as you buy or pass by, but the silhouette of an East End barrow boy, of sorts, is the memory that abides. He's untrustworthy. He's a criminal. But not a proper one, really...

"The way that we come to a £3bn figure is based on the fact that for every legitimate copy sold, ten are being produced by pirates. We say that three out of that ten would go and buy that game if piracy didn't exist"

Repelling the pirates

Wrong, says ELSPA. **Terry Anslow**, as chief investigator of the association's crime unit, is a man at the sharp edge of the industry's fight against professional piracy. "I've got investigators up and down the country, and it's half ex-police, half ex-trading standards," he reveals. "They operate from home, and we work in an undercover capacity, in a lot of cases, to try and find the people who are producing this kind of stuff. We will do investigations either with trading standards police or customs, or on our own, but we have to rely upon enforcement agencies to deal with the warrant-getting and the door kicking-in."

Anslow has found that the wider criminal world has a nefarious eye trained upon the software market. "Organised crime has been very quick to realise how much money they can make from pirating games," he states. "It's not what it was in the Amiga days – little men in shabby grey raincoats on a Sunday morning, making a few quid. These are very serious criminals, and they're taking a lot of the public's money, for no effort. People talk to me about the obscene profits made by publishers in this country, but how does that compare with someone that buys a blank disc for 40 pence, to sell it on for £10-£15? That, to me, is far more obscene, and it's what we're trying to stop.

"We're certainly having an effect, though, because we've noticed in certain areas where enforcement is good, it's not easy to infiltrate these people. That's a very good indicator that they're wary of detection. We took 200,000 gold CDs off the market last year, in over 1,000 raids. There's a trend towards prison sentences, too. If they don't go for copyright theft, then there's a good chance they will be something else that they're involved in."

"The individuals that Terry is busting," says Bennett, "are people that are selling games for profit. They make unlawful money out of someone else's intellectual property rights. It's stealing – there's no question about it. These people are organised in the sense that it's their living. And they don't always simply sell counterfeit software – they're involved in other things as well. And what money they make can go into drugs, and they can maybe make more money out of drugs, or distributing pornography, or getting involved in various other rackets."



This little load would make for a happy Christmas for any fan of gaming. For the industry, it's a real headache. The casual pirate is threat enough, but tricky to regulate. The professional pirate is an easier target to hit



Another successful ELSPA-inspired raid. The hauls are becoming increasingly large – involving six-figure sums – and the penalties for pirates are becoming stiffer. Prison is now a very real possibility for the professional pirate. Ironically enough, the roll-out and growth of DSL could deprive these rogue traders of a large part of their potential market

Anslow is quick to confirm ELSPA's claim that 80 per cent of all software pirates are involved in other forms of criminal activity, sometimes to a significant extent. "Eight out of ten are. And yes, it is that high. We're finding drug dealers, drug importation, child pornography and paramilitaries as well."

So ELSPA isn't merely adopting a 'pirates are paedophiles and drug dealers' line to evoke public ire?

"The type of people we are aiming at are the ones that are directly involved in selling pirated software for profit," Bennett responds. "It's an organised crime, highly organised. They've got runners, lookouts, and Christ knows what. They have factory facilities, where they distribute it to other people. It's not surprising, as Terry can confirm, that the sort of people that he busts are involved in other criminal activities. So we're not trying to impress anybody, or make a story out of it: it's the truth."

Armchair bootleggers

But what is ELSPA's opinion on individuals who copy games, and pass them on at no charge to friends, as many do with music or video recordings? Do they have any intention of widening the focus of their investigations to encompass the common punter who happens to own a few dodgy PlayStation discs? "Nobody yet, to my knowledge, has been caught, or indeed targeted, in that context," Bennett says. "We're not suggesting that we could condone it, but equally we're not suggesting that we're going to prosecute people who pass on copies from one person to another freely. But, nonetheless, it is an illegal act. The crime unit is entirely aimed at those people who are deliberately setting up business to undermine the interests of the software publishing community. It's unlikely, put it that way, that we're in a position as far as enforcement goes where we or any government agency could feel the collar of a person who has been given a copy of a game by a friend.

"I'm not going to stand up in front of anyone and say: 'Right, we know that this goes on, and it's fine, we're not worried about it'. We should be worried about it. It's an endemic, cultural fact, this casual piracy – and one that, in the long term, will seriously affect the creation of interactive leisure software. If people can't sell software and make a profit because of piracy, then they can't produce any more, because they're got no money to reinvest. That's the way the world works."

When copy protection devices such as Safedisc, validation codes and hardware dongles are used with entertainment software, they are designed to foil what is potentially the most dangerous pirate of all: you. From a few hours to a couple of weeks, most game security systems can be broken



Hauls like this keep Terry Anslow, the ELSPA crime unit's chief investigator, an increasingly busy man

A convicted pirate speaks

Mr X – not, of course, his real name, nor a nom de guerre he uses – was arrested for fairly small-scale sale of pirated software. Surprisingly, though, he was given a custodial sentence. Here, he talks to **Edge** about his court experiences.

What's your current opinion of software piracy?
It's something I learned from. It wasn't worthwhile for me – I wasn't making a lot of money – and I got the hard end of the law. Whether that was justified or not is debatable, in my opinion.

How do you feel about the custodial sentence you received?
At the court that I went to, the magistrate didn't have a clue what a PlayStation was. It all depends on whether you get the right court, right place, right town; put my case into London or a big town, and I'd have probably got community service or something instead. It does vary from place to place.

On the prosecution side of things, there are different sides to the story – theirs and mine. But what came out in court was exaggerated. I had never been in trouble before. I told them the truth when they asked me how long I'd been copying and selling software. So when they asked me how much was the most copied games I'd sold in a week, I told them it was ten. So they then said: he sold ten a week, over a certain number of years, and that's the sum he's stolen. And you think: no, that's not what I said. And then you go to prison, and it changes your perception of things a bit – you've been sentenced after allegations that aren't specifically true. Hands up: I was selling pirated software. I admit it – but not in the quantities that they were saying, and I'm still a bit sore about that. I've known other people who have been caught and prosecuted, and they've got away with it.

Do you think broadband will change the way that people acquire their pirated games? They'll buy cheap games from pirates now, but if they can get them for free via the Internet, will that still be the case?
With ADSL, with broadband, the potential exists for the home user to get stuff without having to find a specific source. You're never going to get rid of the market trader, but he'll become far less important. Software companies all know that they've got to look carefully at >

A pirate speaks – cont'd

broadband, because at the end of the day, you might not even need the videogame store at some point. You could download it, have it instantaneously, and pay a fraction of its retail cost on your phone bill instead.

I think you'll have Dixons, PC World, and EB with their own branded areas, their own secure online shops. But as many legitimate online stores as you might have, there will be ten times as many pirate places coming and going.

Do we need a change in the law to moderate what people can and can't do with broadband?

They can change it in any way they like, but how do you stop someone downloading a game? And how do you get them to remove the game from their hard drive? You're supposed to wipe things that you record from the TV within three months, isn't it? But do you do it? Some laws aren't enforceable, really. It's like MP3, I guess. The music companies don't like it, but in time they'll embrace it – it's the lack of control they don't like, and that's why they're fighting the Napster case. What I don't like is how a big company like Sony can say: right, you can't copy our software, music or films, but you can buy our CD writers and buy our blank CDs. They're offering the market the means, and then saying: Oh, but don't use it for that.

Is there any way of combating the threat of mainstream piracy?

Ultimately, the solution is to protect the software, and not the hardware. Once you've disabled security measures on a format, they're gone for good. Look at DVD players. Look at the Dreamcast stuff. All of a sudden, all these copied discs are on the market, and there's very little that can be done about it. I'm not involved in that sort of thing at all these days, but you can't help but notice that people have started buying the Dreamcast because they can get copied games for it. Piracy has walked hand-in-hand with every console and computer format. It's always been there, but it's just a lot bigger now.

by a dedicated cracker. How many average PC owners, however, are willing – let alone capable – of wading through code to isolate and disable a copy protection routine? From the ZX Spectrum to the X-Box, software publishers recognise that 'casual' piracy – that is, individuals making copies for friends and acquaintances – is an enormous threat to revenue streams.

Integral to the industry?

"Piracy is a reality that's been with this industry since… well, forever, really," says **Peter Molyneux**, managing director of Lionhead Studios. "With the Sinclair Spectrum and Commodore 64 you had media that you delivered to your computer that was easy to copy – a tape or a floppy disc. We've gone through lots and lots of iterations of protection since then, and we've tried loads of things, and here we are again: back virtually where we were a decade ago. Ten years ago, I can remember we were all talking about how terrible piracy is, and how it kills our market; how a game is hacked within three days of being finished. We have just simply never solved it, because there are some very obvious things to realise about piracy. The first is that computer software is a very expensive thing – you know, it's £20 to £40 of anybody's money. I guess if you start analysing it on an hour-by-hour basis, it's not enormously expensive, but it's still a lot of money for people to fork out. The industry has to be – and is – proactive about coming down very hard on the people who are making a lot of money out of pirated versions. But it also has to understand that certain people are always going to pirate games to give to their friends, because that's the nature of the beast."

It doesn't take a genius to surmise that an absolute absence of copy protection would lead to disastrous consequences for publishers. However, Molyneux feels that intrusive security measures estrange paying punters. "You end up adding fuel to the piracy lobby," he says. "The cracked version doesn't have a code number you have to type in – you just play it." Herein lies a deeper truth: anything that might make an individual seek out a cracked version rather than an original is to be avoided. When illegally duplicated, the quality of videogame software is rarely diluted. Unless specific portions of a title have been removed or tampered with – the pruning of nonessential files to facilitate storage on a smaller medium, perhaps – the finished article is invariably indistinguishable from the final release. With cassette tapes, or counterfeit videos, a second-generation pirate copy will obviously be of lower quality. Not so with videogames: a 50th-generation duplicate will be as good as the first.



A manufacturing plant writ small. From a spare room or bedroom, pirates can duplicate thousands of pounds' worth of software. The rewards, for little expenditure, are large

Observers of the MP3 phenomenon have argued that, far from being a threat to the music industry, the format is in fact a powerful marketing tool. Napster is not the devil: it's the FM radio of the information age. There is a resonance to this argument that most **Edge** readers will appreciate. As teenagers, the vast majority of current twenty- and thirtysomethings will have owned sizeable collections of copied music cassettes. But as adults with disposable incomes, they buy compact discs. It's not merely the higher quality of the recording that matters: it's how it looks. Raised on consumer culture, most individuals want the whole package: the proper sleeve and spine so it looks good on a CD stand, the lyrics, and those extra tracks that always seemed to slip off the end of a C90. Is MP3 the cassette tape of the digital era? Opinions differ.

The problem that the videogame industry faces is that its wares are eminently disposable by comparison. How many owners of pirate copies will go out and buy the legit version because their self-image dictates that it will look better on their shelf? Fashions change within the music and film industries, but the videogame industry is different: progress condemns ageing titles to obsolescence. Moreover, few games are played for longer than a day, a week, or a month. The moment a pirate copy falls into the hands of a gamer, that individual is a potential customer lost forever. If mainstream gamers could duplicate and give away videogames as easily as they might with cassette tapes or MP3s, it would lead to disaster for the industry. The truth is, to a certain extent, they already can.

Internet infringement

Edge, like all liberal entities, is not a proponent of the view that the Internet should be censored or regulated. It is possible, however, that this useful, entertaining tool could kill (or at least seriously damage) the PC games industry within the

Internet auctions are lucrative trading grounds for pirates. An American agency claims that action against Internet software pirates more than doubled in the year up to September 2000

How many CDs can the above machine duplicate per hour? Multiply that by the average hours in a working day. Take that total, and times it by a tenner per game

next five years. Console formats, although at less immediate risk, are also in danger.

Internet auctions are proving lucrative trading grounds for professional pirates. Over the year ending August 31 2000, an American agency, the Software and Information Industry Association, claims that action against Internet software pirates increased by 235 per cent. There were 757 cases initiated against individuals or organisations distributing illegal software, compared to 226 actions in the previous year. In April, the SIIA announced that, in a four-day survey of Amazon.com, eBay, Excite and Yahoo! auction sites, 91 per cent of software auctioned was pirated. Illegal traders, realising that enforcement agencies are watching such activities closely, are now collecting email addresses of auction users that might be interested in cheap games in order to contact them directly. But this is the least of the software industry's worries as far as the Internet is concerned.

At www.gamecopyworld.com (and a number of other sites) you can download 'fixed' executables for PC titles, and detailed instructions on how to duplicate both PC and console games. Ostensibly, it offers this advice because the right to make backup copies of software is an element of US law. As retrogaming sites insist that game downloads are for the sole use of those who own an original copy, Gamecopyworld requests similar discretion from its visitors. In practice, such polite requests hold no weight.

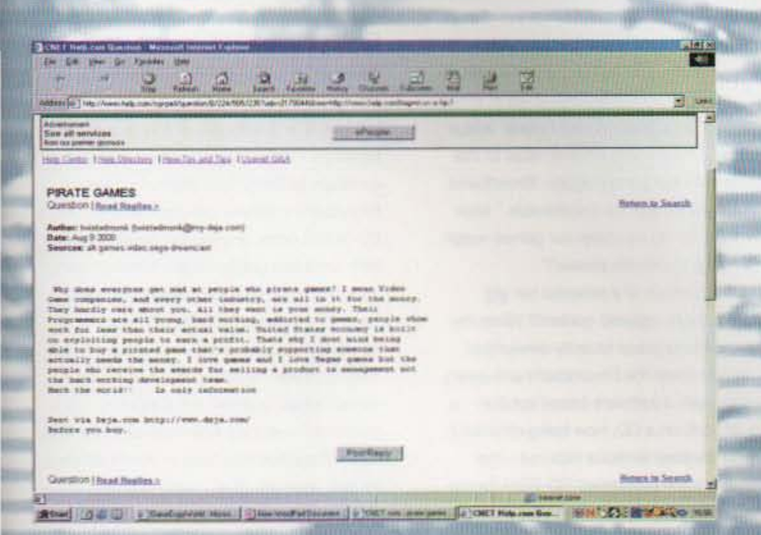
It's difficult to stop coders from cracking copy protection: it's something enthusiasts do for fun and approbation, not profit. "I used to crack games in my youth, a long, long time ago," offers Argonaut founder **Jez San**. "Twenty years ago I was a hacker before I was a game programmer. It happens. It's one of the ways that you prove your skill to your peer group."

So how does San, with his prior knowledge of the scene, suggest the industry prevents crackers from pursuing their hobby?

"I don't know that you do," he opines. "But then, maybe one day we should. It's difficult. I genuinely think that the ingenuity of the security creators is as good as that of the security breakers, so I think it's a cat-and-mouse game. That's just the way it has been for over 25 years."

Copy protection on PC games is used to ensure that any version can only function on one machine at a time. It demands that the CD be present in the drive for a game to run, even though PC software generally allows all files be installed upon a hard drive. The fixed EXE files on Gamecopyworld remove this requirement, thus allowing the original copy to be passed on or sold. As these files can be downloaded with a modest 56K modem, a single PC game could be circulated throughout a peer group.

It is broadband Internet access, however, that truly complicates matters. Wider pipes equal more data per second, and the higher that gets, the more feasible it becomes to simply download entire games. Anti-piracy organisations of government or industry origin can shut down pirate sites as they find them. There are even companies that specialise in locating copyright or trademark infringement on the Internet, such as NetRecovery Solutions in the US. As no ISP of any standing (or, for that matter, common sense) would refuse to remove pirated software, 'warez' sites are forced to remain



During the MPAA vs 2600.com case – where the film industry is taking a Web site to task for the illegal posting of DVD protection code – NY district attorney **Lewis Kaplan** said: "Computer code is not purely expressive, any more than the assasination of a political figure is a purely political statement." Software piracy is not protected by the First Amendment, or other such free-speech laws. But the argument illustrated above prevails

underground, where common-or-garden Internet users will struggle to find them. It is, granted, possible for pirates to use a server in a country with little respect or regulation of copyright laws, but nations with a vested interest in protecting the IP and revenues of their own companies are taking steps to deal with this, too. The world's dominant economies, boasting GNPs of more than one trillion dollars per financial year – including the US, Germany, Japan and the UK – can use aid and trade as cudgels to encourage developing nations to be 'on message' where piracy is concerned.



The delay between Japanese and Euro releases encourages piracy. As one gamer told **Edge**, *Tekken 3* was even bought by those who usually ignore pirate software

Peer-to-peer problems

Unfortunately, such efforts do little to address the issue of peer-to-peer software. Using *Gnutella*, *Freenet*, or any similar piece of software, any piece of code can be transferred from one point to another. Lacking the centralised server that Napster has, every transfer is conducted from PC to PC. Buying a counterfeit game from a market trader might make you feel a bit shifty, but a pretty much untraceable download via peer-to-peer software, as San puts it: "Doesn't look illegal. It doesn't feel as if you have done anything naughty, and no one will ever find out." If you have enough pipe, you can download or upload as you please.

Intriguingly, a study conducted of Gnutella users by the Xerox Palo Alto Research Centre discovered that 70 per cent of users don't share their own files (their survey bestowed the moniker 'free riders' upon such folk). Taking a close look at the movement of music files, they noted that one per cent of users offered half the available music for transfer, while a mere 25 per cent of users served 98 per cent of requests. One explanation, of course, is that those with the best bandwidth can offer more tracks, and that individuals with a mere 56K modem – still the majority – will be disinclined to offer downloads.

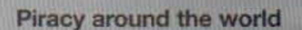
The fact that game files are exponentially larger than music files means that, while there will be many people seeking downloads, fewer users will be willing to provide – hard drive space being another area of life in which the 'always living beyond your means' adage rings true. There is also another facet to this issue: games are getting bigger. "Broadband is such a hot potato, it's unbelievable," says Molyneux. "So do we make our games weigh in at ten gig, to prevent pirates?"

But how much of a potential ten gig game is actually required content? When the Utopia cracking group recently announced that it had broken the Dreamcast's anti-piracy measures with a software-based solution – a piece of code on a CD, now being circulated, that also disables territorial lock-out – the weakness of the proprietary GD-ROM format was revealed. Granted, certain titles are larger than the 640Mb that a CD-ROM disc can carry, but the pirate solution is elementary. People have been removing nonessential files, like FMV sequences, before making the results available via the Internet. Dreamcast software is now available from a market pirate or through peer-to-peer programs.

Compression, and the very nature of game code, makes size of only partial merit as a preventative measure. On a PC, music files could be compressed as MP3s, video files clipped (where relevant) and graphics data crunched. Furthermore, a simple program (not dissimilar to *Installshield*) could automate the entire process. "This used to happen quite a lot and it is definitely happening now," offers Molyneux. "The hackers are doing far better jobs of compressing data and making things more accessible: it puts us to shame a bit. I remember one game I did was on three discs, but somebody managed to get down to one. God knows how they managed, but they did do it."

Below the radar

Ultimately, the biggest problem for those seeking to keep piracy in check within the UK – as in all developed, software-producing territories – is that it remains something of a cottage industry. With Internet access (broadband a definite preference), a PC and a CD-ROM burner, anyone can pirate software. With a modest outlay, a back bedroom can be transformed into a lucrative duplication plant. The rewards are high, although, increasingly, so too are the risks. Equally, the 'casual' pirate – and this usage of the term will rile certain quarters of the industry, but a distinction must be made – can spend a few hundred pounds and copy or download titles for their own use. How many hardcore gamers, given the opportunity to feed their



Piracy around the world

Attempts by the software industry to grow in countries where piracy is endemic have not met with much success so far; with counterfeit product being so cheap, publishers are finding it hard to entice consumers away from pirates. **Edge** spoke to Roger Bennett, currently forging links with anti-piracy organisations worldwide, about the worst-case scenario that some developing nations represent.

Would greater respect of IP in developing nations, or those that have widespread piracy, benefit the consumer in the UK?
If we expand the market worldwide, we could hopefully be looking at more product accessible at more reasonable prices. The fact of the matter is if you go to South America, South Africa or South East Asia, people can't afford to buy product at full price.

But how can the industry break into such markets?
The bottom line is, can the economy of any one country allow the consumer to afford the purchase of product at full price? Let's take Argentina as an example, as I recently visited there. In Argentina, if you want to buy a legitimate PlayStation game, it costs $110. That's because nobody duplicates in Argentina because there is no market, import of legitimate product has a 25 per cent tariff on it, and VAT is at 23 per cent. So you've got the import costs there, an import duty of 25 per cent, and the VAT – and then you go down to the market, and it's full of games going for $5-$10. How do you bridge that gap? You can't. The only thing you can is to sell product at a loss; to sell product at a competitive price to re-establish the market. The thing about our industry is, it's now a worldwide phenomena. It is huge in every country around the world. But how many markets sustain our industry? Western Europe, North America, Japan, Australia, and New Zealand. The entire industry, from an economic point of view, is being sustained by less than a quarter of the world's population.

India is touted as a hotbed of IT, and has almost a billion inhabitants, and yet revenues accrued from software sales there...
... are nothing. Nothing, nothing, nothing. So, in effect, the so-called sustainable economies, the developed economies, are the one that are sustaining the industry, as they are in sustaining many other sectors as well. We're having to pay through the nose, or having to pay higher prices, than we'd otherwise have to do. I'm not in the business of defining what price points should be. But clearly, if there was a global market which would allow profitable distribution at a price people can afford, then that would be the perfect ideal, wouldn't it? But, you know, economics are such that someone has to pay for it in order to sustain production of it. That's why we have to maintain a cap on the levels of copying, or copy distribution as is possible. So you could say, there's no-one in the UK who is justified in not buying legitimate product. It offers extremely good value, long-term entertainment – there's really no excuse for them to not buy genuine versions. I would certainly dispute the argument that there are a lot of people in this country that couldn't afford to go out and buy legitimate product.

Piracy will never be eradicated, but it's important that it never reaches endemic proportions, where publishers are unable to recoup costs because of it. Many solutions are being debated

habit for less expenditure, will resist the temptation? Whatever inroads it has made into the massmarket, the videogame industry can't afford to lose its most avid customers.

It's easy to scoff when gamers cite ill-considered arguments about why piracy is justified in whatever shape or form, but at least such disillusionment or ire is tangible (and, therefore, refutable. And how many former hackers and crackers, having once espoused the idea that information wants to be free, have gone legit?). Many mainstream punters buying pirated discs, however, don't feel that their actions are really illegal; theft of digital IP remains an abstract concept for many. You steal things that you can see – cars, wallets, televisions, oven-ready chickens. There is a world of difference between dropping a copy of *Deus Ex* into a shopping bag in Dixons, and acquiring a copy from a pirate or the Internet even though, ethically, the two acts could be viewed as similar.

Many people are either ignorant of or indifferent towards copyright law within the UK (including, in a perverse kind of way, the courts – ELSPA has commented that punitive sentences doled out during prosecution of pirates at present tend to be for trademark infringement, rather than theft of content). **Edge** has heard many anecdotes concerning people – not pirates, but those who buy product from them – attempting to trade in or sell duplicate software to indie stores. Such naivete is almost touching.

Teaching righteousness

Piracy will never be eradicated, but it's important that it never reaches endemic proportions, where publishers are unable to recoup costs because of it. At present, many solutions are being debated. At the top of

Software: more profitable than the narcotics trade? For the dedicated criminal, it can be

Codemasters' take on piracy

Codemasters, like all successful software houses, has seen its games widely pirated – even before a title's release. **Edge** spoke to **Gavin Raeburn**, the creative-minded producer of the *TOCA* series, and game design director **Richard Darling** to better understand how publishers regard piracy.

How has software piracy affected you and your company in the past?

Gavin Raeburn: I would have to say that it has, but to what extent I do not know. We know, for example, that there is around 30 per cent piracy in Australia, 97 per cent piracy in Argentina, and almost 100 per cent in the Far East, but it is unknown how many of the people buying pirated games would have bought the full product if the pirated copies were not available.

What steps are you taking to prevent piracy of your software?

Richard Darling: Piracy falls into many categories. One of the most damaging is when a game is widely available in piracy circles prior to its official release. As well as the players who would play pirated copies of the game, this situation encourages the very keen gamer, who would normally buy the game on the day of release, to use a pirated version instead. We use several measures including dongles and encryption to ensure that while the game is in development it would not work on a machine outside the company. Also, any copies of games released outside the building for reviews, shows, etc are carefully controlled and logged and require a unique dongle to work. So far we haven't had any major pre-release problems. When a game is released we usually put a form of copy protection on the disc which stops a gold disc copy of the disc from working. This helps, but the systems can be cracked – and unprotected versions of the games can then be distributed by the pirates.

GR: As far as copy protection systems go for the final retail version of the game, these tend to be on a per project basis, and are usually tacked on to the product at the end depending on how much time we have left. The most comprehensive anti-piracy techniques we have employed have been on *TOCA World Touring Cars*, where we used Sony's Libcrypt system and our own anti-tampering checks. Unfortunately, the Libcrypt system is very easy to crack as it has a very simple fundamental flaw in the way that it operates. The system is therefore only any good at stopping the casual pirate.

There is a theory that you could pick any home or office across the land, and you would find evidence of copyright law infringement there – from movies to music, videogames to bootleg merchandise. People have, in general, a remarkably casual attitude towards small to medium-scale piracy. How can any industry fight against that?

GR: I was in an electrical shop the other week when I overheard the shop manager chatting to a friend about whether he would like a gold copy of *GT*. He then saw my Codemasters T-shirt, and to my amazement asked me if I could give any advice on how to copy *Colin McRae*, as he was having problems with his CD burner. People just do not see piracy as theft, and this is the problem. Walking out of EB with a copy of *Spider-Man* stuffed up your jumper is just as illegal as buying a gold disc of the game at a car boot stall, and this is the message that we need to impress upon people.

Should there be a shift in the law, so that those found buying illegal software are actively pursued and prosecuted?

GR: The law is fine as it stands for the people who buy copies of games, but penalties and sentences should be greater for those who mass-produce pirate copies of games. Without these people there would be no pirate copies to buy.

There is a theory that suggests that mild to moderate massmarket penetration of pirated software actually encourages people to buy a gaming format (any greater, perhaps, and the format would become unviable) – that a modicum of piracy is of benefit to a gaming hardware manufacturer. People will, in short, buy a console because they can obtain cheap software for it. Do you agree with that?

GR: I do not believe that people would necessarily be swayed into buying a console if they know that there was cheap pirated software for the system. Indeed, I would suggest that the people who know about pirated software would be into games anyway, and would buy the console regardless. In any case, if they bought the console on the premise of cheap software, then they are surely very unlikely to then start buying full price software.

Do world governments need to embark upon a grand 'social programming' project to educate the masses of the inherent wrongs of piracy?

RD: Perhaps, but I think the games industry should be proactive and take the responsibility to get the message across. Our trade body (ELSPA) has been making a >

continued over

Codemasters' take on piracy – cont'd

lot of progress in this area and has been increasing the prosecution rate and trying to spread the message.

How do you feel about peer-to-peer transfer software, such as Gnutella, Swapoo, Napster and the putative Freenet?

GR: I have heard of a system that is being introduced in the US that allows you to select any game you wish on PSX/PC/Dreamcast, which is then duplicated on gold disk and sent to you for free. This site is paid for by advertising, and the legal issue of copyright infringement is allegedly avoided as the whole system is automated, making the individual responsible for breaking the law. If this system is allowed to stay operational and becomes as popular as Napster for example, then it could potentially cripple the industry.

Do you feel such programs (and their more sophisticated successors) will, with the widespread uptake of broadband Net access, make the PC obsolete as a gaming format?

RD: I can't see the PC ever becoming unviable as a games publishing format because of piracy; it will reach an equilibrium - assuming there will always be a demand for new games. Games developers will invest money in developing software to a level which is in proportion to their expected returns. Ultimately, more piracy (to the extent that it displaces sales) means fewer new games, and less piracy means more new games.

GR: Piracy is a huge problem on the PC, and because of the open format of its architecture it is impossible to protect your software fully. One of the contributing factors for not writing *TOCA World Touring Cars* for the PC was the problem of piracy on that format. There is no point supporting a platform with a quality product where we cannot cover the cost of development, and, followed to its logical conclusion, this would means that quality software would stop being produced by publishers/developers, just like with the Amiga/ST.

At what point would piracy make a format unviable for Codemasters to work with?

GR: It is not just a case of simply covering development costs, as in such a risk-filled industry as ours we need to use our available resource wisely. Spending £5m developing and marketing a game on the PC may still give us a small profit, but if we can develop the same game on another platform to give ten times that profit, then that is where we should be expending our effort. The only other reason that could keep us working on a particular platform is if the technology on offer is cutting edge, and by sticking with that platform we are allowing our staff to remain cutting-edge.

One suggestion offered as a solution to PC piracy (and, indeed, piracy on any gaming format with a hard drive and Internet access) is to, via overt or surreptitious means, 'monitor' the software contained upon a hard drive. Could this be a solution to the piracy problem? And, if so, how can any industry player implement such a feature without suffering a public backlash against the perceived invasion of privacy it would represent?

GR: I believe Microsoft tried implementing such system and there was indeed a huge backlash. The whole idea fails for so many reasons – it's almost certainly illegal, it may put people off buying legitimate software if they think it will allow their systems (especially PC's) to be monitored, and the hackers would crack the system anyway – probably for their own clandestine reasons.

It has been suggested that lower software prices would, in time, prove to be a satisfactory antidote to piracy – also, as an additional benefit, allowing a wider spread of the human demographic to regularly buy games.

GR: Although I do believe it's important to get the balance right, I believe that people would do not recognise that piracy is illegal will always choose the cheaper option.

Do you have any other thoughts on the issue you would like to make?

RD: There are some types of games where piracy simply doesn't exist. These are games where a subscription is charged for an ongoing service, such a persistent world games like our *Realm* game. People can copy the game, but will not be able to play it without paying for membership, since connection to our server via an authorised account is needed. These games do raise different security issues, but piracy of the game is not one of them. With the addition of more and more gameplay features which require a connection to a publisher-controlled server, we may see a change towards charging for the ongoing service instead of the game itself.

many people's list, though, is the principle of teaching the entire country to respect copyright law. A similar form of social programming is being attempted in Hong Kong, although it's too early to discern its efficacy thus far. Other countries are embarking on campaigns of varying scope. "In France," cites ELSPA's Bennett, "they have, as part of the school curriculum, an element of content that is purely for the purpose of teaching respect for intellectual property rights. That's something we don't have in this country."

Perhaps we should, then? "If we want to have an industry in the long term," continues Bennett, "we have to have a degree of protection, so that people can actually sell software. If that means re-educating people to respect intellectual property to a greater extent, then that's something that has to be addressed."

Teaching people about copyright law and intellectual copyright is one thing, but to respect it? That's a different matter entirely. The sheer revenues generated by certain software companies engenders, however erroneous it might be, the usual take on the Robin Hood ideal. As one participant in **Edge**'s piracy survey glibly commented: "It doesn't look as if Bill Gates is having to forsake many pies, does it?" An appreciation of consequences is a vital element of the socialisation process. Is there any credence in a spare the rod, spoil the industry-type argument? Is a legal system tuned to crucify professional pirates and at least castigate casual home copiers a reasonable proposition? The former might be possible, even desirable – but going after occasionally wayward consumers could prove a logistical (and political) nightmare.

"What, zero tolerance of software piracy?" exclaims Molyneux. "Let me put a question back to you: if you were a policeman and you came round to my house and saw a whole load of copied cassettes and CDs that I've recorded from friends, should I go to jail?

"If the police came in here or your home, or anywhere, and they did say: 'Right, we've got you, son', probably the last thing you'd think of would be your music collection. I think that's the same for a lot of computer games. I don't know the exact legality of it, but I'm pretty sure this is true: even when you buy a book, you buy it for your personal use, to read yourself, and you're not supposed to lend it to anybody. That just shows how out of date all of our copyright laws are – they're completely out of touch with reality."

Awkwardly, 'reality' differs in accordance with who you're speaking to. Disney chairman **Michael Eisner** went on record recently as suggesting that media players on PCs should be formalised – that special, authorised players might help prevent piracy. He is also an advocate of snooping devices at ISPs. "Piracy is a technical problem which must be addressed with technical solutions," he told the Congressional Joint Economic Committee in Washington. "We need assurance that the people who manufacture computers and operate ISPs will co-operate by incorporating the technology to look for and respond [to piracy]."

Big Brother is watching

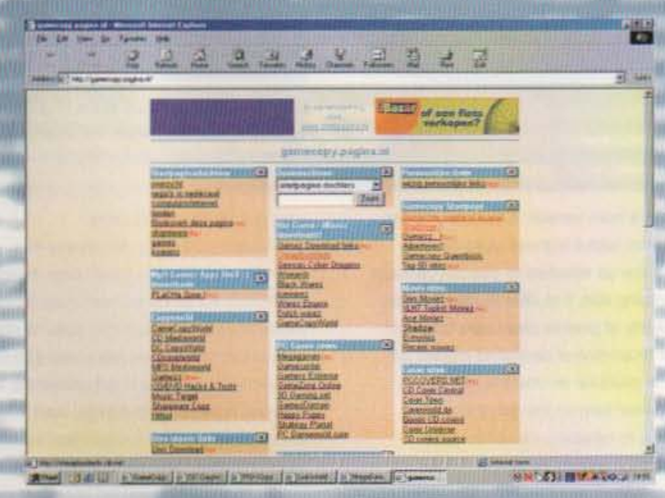
The prospect of snooping devices installed at ISPs is not a salubrious one, but at least public uproar at the potential invasion of privacy makes an entirely commercially



One interesting facet of Dreamcast piracy is the appearance of emulator-laden discs. One offers every SNES game for £5



The number of sites offering 'cracked' EXE files and patches for console releases is increasing. In the States, such a service is legit – but UK users can still visit



A Web portal, containing links to sites that offer instructions on how to duplicate software. Once DSL arrives, will similar sites offer full games?

oriented spying system unlikely at present (even if the UK and US governments do eventually get their way with the RIP bill and Carnivore project). But how does the proposal that Internet access should become mandatory for PC games (and, later, consoles) to run appeal to you? This would allow a simple method of copy protection, as San explains: "Perhaps you could use it so that, every time the game starts, it sends a message over the wire saying: 'I'm running'."

Of course, privacy is something that people take very seriously. At this point in time, it's near impossible to say that every gameplaying individual will be willing or able to distinguish between byte-sized validation of software and outright monitoring. San believes that, implemented correctly, even pirates would retain their anonymity. "Code like this should be able to determine the legitimacy of a game without interfering with people's privacy. The game doesn't need to tell the outside world that the person is a thief – it's just determining whether it should be running or not."

A far more consumer-friendly iteration of this concept, especially given the current attitudes towards any form of Internet tracking, is that ownership of an original copy guarantees additional content that a pirated copy would not. "In fact, that's the approach we'll take with *Black & White*," offers Molyneux. "If people want a pirate copy, then fair enough. Well, it's not fair enough, obviously, but if you want to download all the add-ons we'll be doing, you have to be a registered player. To be a registered player, you have to have an original copy."

Eventually, the industry might reach a point where the sale of games on solid-state media will be become superannuated; that the pipe connecting each home to another will become broad enough to allow content to be downloaded immediately on demand. This utopian future ideal for all entertainment industries will take a great deal of refining. It's hard to say whether individual billing, or buying 'channels' of games from publishing organisations will suit companies and consumers best. Moreover, it could be that games produced (and released) in an episodic sequence will be the best option for developers, both as a means of bringing in revenue while coding, and to minimise the damage of piracy. But while the industry is examining the technology and security required to make either work, broadband is already offering content on demand. How can software houses, even governments, arrest the seemingly unstoppable growth of peer-to-peer transfer programs?

Corporate guerrilla tactics

One unusual (although strangely viable) suggestion is that content owners embark upon a campaign to dilute the efficiency and perceived reliability of peer-to-peer software. The Canadian group Barenaked Ladies recently confounded a number of Napster users by circulating aural advertisements for its latest album disguised as MP3s of the band's songs. Imagine a similar tactic applied to videogames. Even though ADSL roll-out speeds are much higher than the current feeble mainstay of the domestic user, the 56K modem, 300Mb-1Gb downloads will be far from instantaneous. Imagine dedicating time, processing power and bandwidth to a gargantuan download, only to discover that

The industry might reach a point where the sale of games on solid-state media will become superannuated; that content will be able to be downloaded on demand



Big crime? Doesn't look like it, does it? Only education, pundits argue, will stop piracy

you have a hoax version: a demo of the title in question, with a high-res video file of a product line-up attached to give the package a convincing size. If studies suggesting that the majority of peer-to-peer users take from a small proportion of dedicated sharers are true, this could be an effective spoiler.

A darker take on the above idea, of course, is to release code spiked with destructive payloads, individual viruses programmed to seriously inconvenience the person in question. The legality of such an approach would be highly questionable, but how many developers or publishers, upon seeing their game cracked and distributed widely on its day of release or before, would not relish the opportunity to strike back, even anonymously?

New problems for next gen

For forthcoming consoles with hard drives – X-Box and, if Sony eventually decides to bundle its proposed drive with the machine, PS2 – ring fencing Internet access has been suggested as the most desirable solution to a potential piracy problem. If users must access dedicated servers, and not the Web at large, accessing the wrong kind of downloads will be an impossibility unless the machine's security architecture is broken by a hardware or software crack. Additionally, users will not have direct control over the content of their hard drives. These security measures also have the inestimable merit of allowing the hardware manufacturers to exclusively prescribe their content and online stores – or the services of their paying partners – to all users.

Dropping the price of software is often espoused as the most noble manner in which to entice consumers away from pirate vendors. Although this state of affairs is desirable for all consumers, sub-£20 price-points for launch titles is not something that software houses, by and large, want. Many are unconvinced that it would lead to more sales and, thus, equivalent or better revenues. Indeed, with all eyes trained upon pay-per-play arrangements, and other permutations of the content-on-demand ideal, it's arguable that calls for a drop in software prices – however pleasing it may be for end-line customers – fails to take into account the direction technology is leading the industry.

So what does the future hold? Most observers **Edge** contacted foresee that the current balance of pirated and genuine releases will be maintained – a cat-and-mouse situation involving crackers and security systems, professional pirates and the authorities. Meanwhile, the majority of casual pirates will continue to be foiled by evolving copy protection systems. The sheer control required to almost eradicate piracy entirely cannot, and will not, be introduced overnight – although, in the long term, a 'boiled frog syndrome' situation, whereby the heat is steadily increased until piracy is stamped out, is not an entirely fantastical possibility. Equally, it's hard to give the apocalyptic view of an industry crippled by pirate activity any credence, because the industry is now too large, too established, to allow that to happen. Or is it?

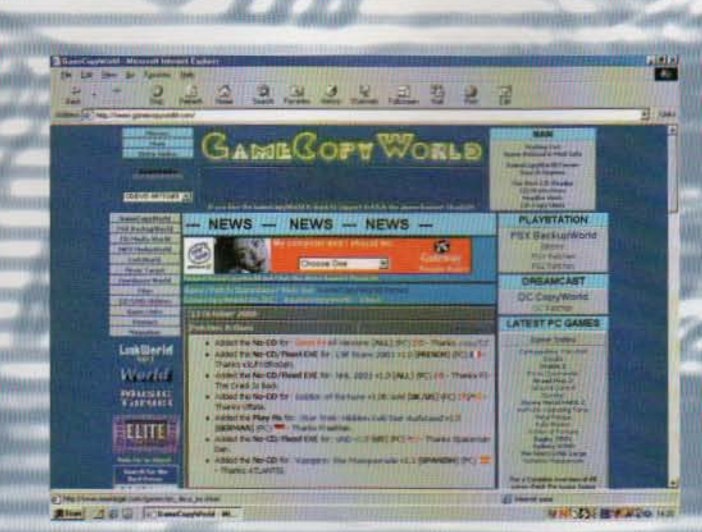
A real threat

When **Edge** interviewed ELSPA's Bennett, he was attending a trading standards management seminar in London. "There was this guy down here from the trading standards authorities who was saying: 'What we need to do is to establish how many businesses do not exist or have gone out of business simply because of piracy'. It loses jobs, and where is the money going? There is this perception that it's an activity that doesn't harm anybody. It's complete and utter bollocks."

Apropos of something or other, **Edge** put the question to Bennett that, as software houses are capitalist businesses dedicated to the pursuit of profit, it's going to be hard to elicit sympathy from all quarters of the wider population.

"What actually sustains the market, the creativity?" Bennett retorts. "There have been a lot of figures bandied around recently: what does it actually cost to produce a game? It costs a million pounds, at least. So where does that money come from? If people want a games market, then somebody has to pay for it. We live in a society now where people do expect something for nothing. Well, it doesn't exist, actually, other than in the short term. But if people continue to expect something for nothing, then eventually they'll get nothing. We live in a capitalist society. Like it or lump it. That's the way it works. If we turn into a different society, well, so be it. But you can't have it both ways."

"We live in a society now where people do expect something for nothing. Well, it doesn't exist, actually, other than in the short term. We live in a capitalist society. Like it or lump it. That's the way it works"



UK-based PC users visit Gamecopyworld to download cracked EXEs for games they own. The reason? To avoid having to place the CD in the drive to play

The Edge piracy survey

It seemed such a good idea at the time. When **Edge** first decided to send out a piracy survey, to be completed by people working within the industry, it seemed unlikely that getting the required 200 replies back would be a problem. That was far from the case. Many companies politely refused to take part (and warned their employees not to), citing the desire to remain true to their official, corporate anti-piracy stance. As one apologetic individual stated: "It may be black and white from an industry perspective but, in reality, there are many shades of grey."

So, after contacting more than 50 companies working within the industry, **Edge** eventually received 100 replies, and decided to call it a day. The results, however, prove very illuminating. While the majority of those replying are from 'rank-and-file' development positions, quite a few senior figures saw fit to respond. Some attitudes were very surprising, as the following figures demonstrate.

1. Have you ever used a piece of pirated software? (YES/NO)
Surprisingly, a mere 97 per cent of all subjects polled replied yes to this question. Perhaps the remaining three per cent entirely missed out on eight and 16bit generations. Then again, perhaps they were telling porkies.

1ii. If yes, do you consider yourself a criminal for having done so? (YES/NO)
It used to be so easy – simply put the original in one tape deck, and your C60 in the other. As one correspondent replied: "Yes – in the loosest sense of the word." A full 89 per cent answered in the negative.

2. Have you used pirated software within the past three years? (YES/NO)
Perhaps **Edge** should have specified videogame software in this question, as it's possible that many answering this question included business software and utilities in their reasoning. Maybe that is why the final percentage answering yes was so high – 85 per cent of all replies, in fact.

2ii. If so, do you consider yourself a criminal for having done so? (YES/NO)
Only 25 per cent of people polled answered yes. If people working within the industry are so unsure about the legality of using pirated software, what does that suggest that the rest of the country thinks?

3. Would you accept an unlicensed duplicate of a game that you particularly want to play from a friend or acquaintance? (YES/NO)
64 per cent replied yes to this question.

3ii. Would the legality of doing so worry you? Would you regard it as wrong; an act of theft? (YES/NO)
Revealingly, 37 per cent believed that they would be wrong to accept copies from friends. As the previous question suggests, this wouldn't stop them from doing so.

3iii. Would you worry about legal repercussions; the possibility of being caught and prosecuted? (YES/NO)
Seventeen per cent would, if they accepted pirated copies of games from friends, worry about being collared by the law. This seems strange at first – after all, as ELSPA clearly state in this feature, going after casual pirates would be difficult, and it's not a priority for them – but perhaps the figure has more to do with their career, and how their managers might perceive such a conviction.

4. Would you buy a game that you particularly want to play from a software pirate? (YES/NO)
Nineteen per cent replied yes to this question. You could safely expect a survey of the public to elicit a far higher affirmative response.

4ii. Would the legality of doing so worry you? Would you regard it as wrong; an act of theft? (YES/NO)
A significant 65 per cent believe that, yes, it would be wrong.

4iii. Would you worry about legal repercussions; the possibility of being caught and prosecuted? (YES/NO)
Twenty-four percent would worry about a run-in with the law if they were to buy software from a pirate. Could stoking the fires of this fear help fight piracy?

5. Using a fast broadband connection and peer-to-peer transfer software – Gnutella, Freenet, Swapoo or such like – would you download a game that you have not paid for via the Internet? (YES/NO)
Fifty-seven percent claim that they would, which adds a touch of credibility to the argument that broadband will pose serious problems for the industry. The flipside to that debate is that people within the games trade tend to be rather more technologically astute than the man on the street.

5ii. Would the legality of doing so worry you? Would you regard it as 'wrong'; an act of theft? (YES/NO)
An almost perfect 50:50 split here: 52 per cent believe that it would be wrong.

5iii. Would you worry about legal repercussions; the possibility of being caught and prosecuted? (YES/NO)
With anonymous peer-to-peer transfer software a reality, a mere 16 per cent would be concerned about the possibility of arrest.

6. Is an individual who writes or modifies software in order to disable anti-piracy measures a criminal? (YES/NO)
Forty-five percent of **Edge**'s survey participants believe so. A proportion of the remaining 55 per cent, no doubt, look shifty when their boss asks how they grasped their expertise in programming.

7. Are draconian legal measures required to keep piracy in check? (YES/NO)
Perhaps it was the use of the word 'draconian' that unduly influenced responses, but only 28 per cent of those polled answered yes to this poser. Which is all the more perplexing when you consider the response to question eight.

8: Should a legal war be fought against those who buy or download illegal copies? (YES/NO)
Thirty-four per cent of survey participants reckon that legal consequences should be applied to those who buy or use pirated software. In principle, it might make punters disinclined to obtain dodgy copies. But where would the authorities start and – more specifically – where should they stop?

9. If you knew that an individual was selling pirated software, would you inform the relevant authorities? (YES/NO)
"If it was someone I didn't much care for, then absolutely," said one individual by way of reply. Yet, amazingly, only 34 per cent offered a similar sentiment.

9ii. If you knew that a friend was selling pirated software, would you inform the relevant authorities? (YES/NO)
This was obviously going to be lower – only nine per cent would snitch on a friend for his (or her) ill-gotten gains.

10. If you knew that a friend was acquiring pirated software for his/her personal use only, would you inform the relevant authorities? (YES/NO)
Only three per cent would. Perhaps they have lots of friends, and can afford to spare a few.

The following statements were to be answered with yes, no, maybe, or don't know.

1. Piracy leads to job losses within the software industry.
Yes: 37%, No: 34%, Maybe: 24%, Don't Know: 5%

2. The software industry would be larger and accrue greater revenues if piracy did not exist.
Yes: 53%, No: 33%, Maybe: 9%, Don't Know: 5%

3. The software industry would be smaller and accrue lower revenues if piracy did not exist.
Yes: 18%, No: 56%, Maybe: 24%, Don't Know: 2%

4. A modicum of piracy is of benefit to any gaming format; the availability of pirated software encourages the uptake of hardware.
Yes: 75%, No: 12%, Maybe: 7%, Don't Know: 6%

5. Piracy is theft, and should be prosecuted as such: individuals who purchase, download or accept copies of games should face legal consequences on a par of those for, say, shoplifters.
Yes: 23%, No: 61%, Maybe: 12%, Don't Know: 4%

6. World governments need to embark upon a grand 'social programming' project to educate the masses of the inherent wrongs of piracy, from the creche upwards.
Yes: 17%, No: 47%, Maybe: 22%, Don't Know: 14%

7. Broadband Internet access and peer-to-peer transfers will allow users to download copyrighted materials – from videogames to movies – within a reasonable duration. Will this mark the death of copyright as we know it?
Yes: 25%, No: 58%, Maybe: 15%, Don't Know: 2%

8. The Internet must be regulated.
Yes: 4%, No: 78%, Maybe: 16%, Don't Know: 2%

9. If a oneplayer game demands that I connect to an Internet sever to register my purchase before allowing me to play it, I would not buy that game. (This does not include 'persistent world' online games.)
Yes (denotes 'would not'): 33%, No (denotes 'would'): 42%, Maybe: 22%, Don't Know: 3%

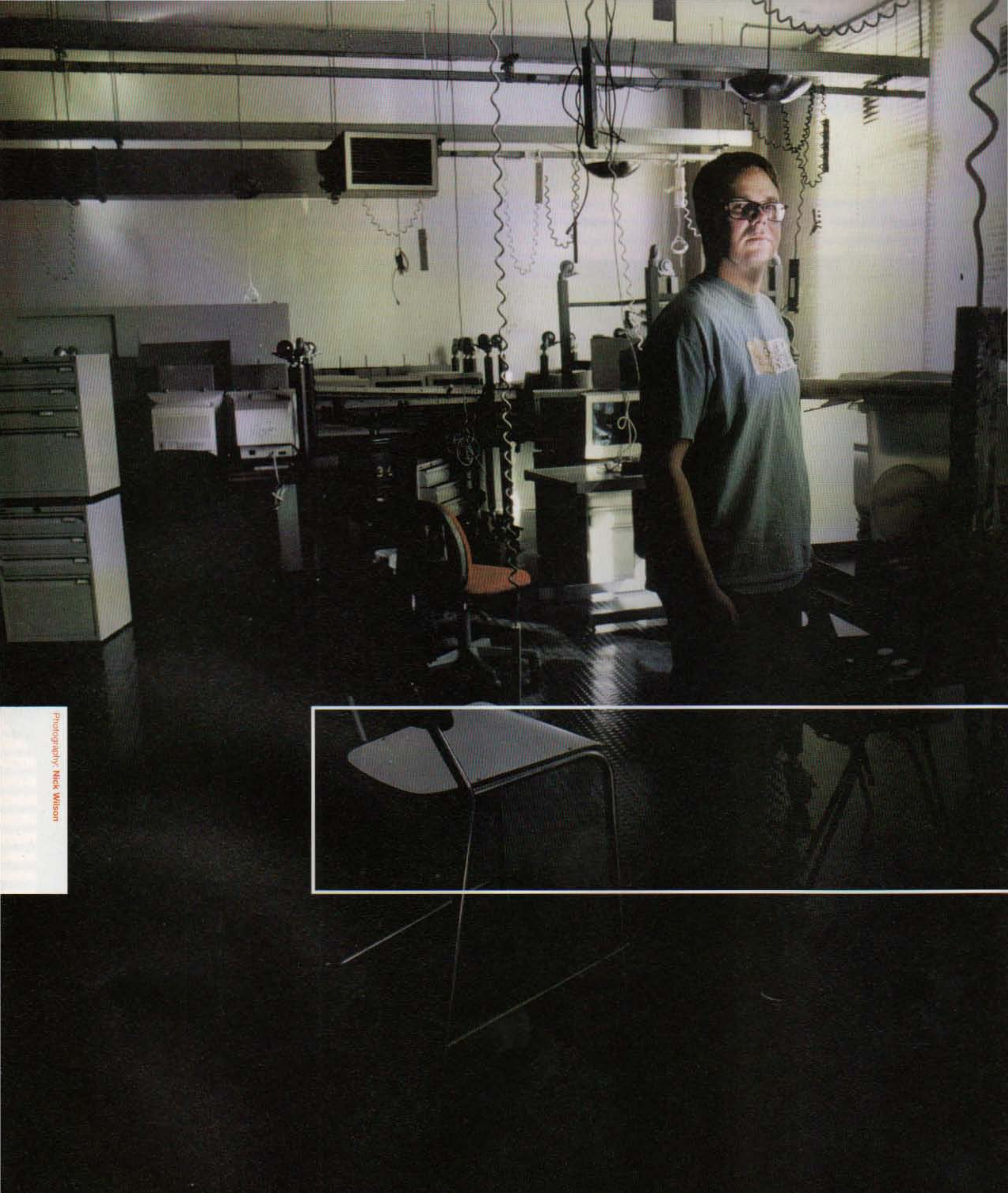
10. Any piece of copy protection can be broken.
Yes: 54%, No: 23%, Maybe: 20%, Don't Know: 3%

11. To sell pirated software is morally wrong.
Yes: 65%, No: 27%, Maybe: 7%, Don't Know: 1%

12. To buy pirated software is morally wrong.
Yes: 63%, No: 30%, Maybe: 7%, Don't Know: 0%

13. To make a copy for a friend is morally wrong.
Yes: 33%, No: 35%, Maybe: 24%, Don't Know: 8%

14. To download a game from the Internet without paying for it is morally wrong.
Yes: 32%, No: 38%, Maybe: 14%, Don't Know: 15%



Photography: **Nick Wilson**

Six degrees of innovation

The computer related design course at the RCA is designed to encourage research in the field of interactivity. Edge looks at the opportunities students' work may present videogaming

What do you get if you cross musical lollipops, a *Track & Field*-killing robot, lemon squeezers-turned-video remotes and handful of post-grad students? Four floors up in the Royal College of Art, the (entirely serious) answer is being forged in the furnace of cutting-edge interactive thinking by scholars on the college's MA in Computer Related Design. With the first bells of term ringing in students' ears, **Edge** met with CRD course leader **Rory Hamilton** to discover what the post-graduates might have to offer the videogames industry.

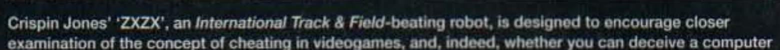
Established almost a decade ago by graphic designer Professor Gillian Crampton Smith, the RCA's CRD programme has managed to build a strong reputation in academic circles. The course's title has confused some outsiders, but the range of skills and technologies it spans is hard to encapsulate in a simple term. "The name of the course is deliberately vague because it covers so much, but really, when it comes down to it, we're talking about interaction," Hamilton explains.

Robotics, programming, social awareness, wearable hardware, multimedia, interface design, mobile technologies – all are topics that fall within the course's remit. "The department started off in the product design department, so it still is within that school of industrial product and architecture," explains Hamilton. Work

takes place in a freeform study area that could easily double as a set from a sci-fi flick; cables dangle from industrial tracking like creepers in an electronic jungle. No student's project is ever purely conceptual – design prototypes, no matter how outlandish, are required to be reasonably functional.

"A classic example of what we would design is a video controller that people could actually use," says Hamilton. "That's our kind of Holy Grail, and sometimes people do it really well." He illustrates this further: "We're quite often thinking about the properties of objects and their inherent interactive qualities. What can objects represent, and what can they do." How this presents itself in students' work can be surprising. "In one year they did a video interface which could only use kitchen utensils," he grins. "Some of them worked really logically – pouring juice in represented length of playback time. That's how you teach people about objects and interface."





Crispin Jones' 'ZXZX', an *International Track & Field*-beating robot, is designed to encourage closer examination of the concept of cheating in videogames, and, indeed, whether you can deceive a computer

"A classic example of what we would design is a video controller that people could actually use. That's our kind of Holy Grail... We're quite often thinking about the properties of objects and their inherent interactive qualities"



Henry Newton-Dunn's 'Machine Not Robot' generates sounds according to the position of sensors set into its structure as its arms are moved in relation to each other

Peripheral vision

This year's ECTS saw Sony unveil an official dance mat for PlayStation, while motion-tracking was demonstrated via a USB Web cam connected to a PS2. Meanwhile, Sega continues down the peripherals path, with *Samba de Amigo*'s maracas and *Seaman*'s microphone joining *Sega Bass Fishing*'s rod in **Edge**'s tangled games room. You'd think that in such a climate CRD students would find a natural home in the videogame industry.

"I think more than anything we've been influenced by the games industry," admits Hamilton. "It opens up possibilities for us of what could be applied to things other than games, either software or objects for use in the office or home that aren't actually games." A strong social context runs through CRD work, reflecting the thinking that technology is purely an aid to interactivity – subservient to it. For the traditionally technoliterate the reverse is often the case.

"Quite often our students think more about the social implications of something like a game. Like [Konami's] dancing game – some of our students did a piece which came from that, because they loved the idea of people dancing in public," says Hamilton. "So they tried to take it out of the context of the arcade – and whether you were a winner or loser – and actually make it into something that could be put into an office foyer." That train of thought resulted in a wall of sequins which masked a set of camera-activated fans, which would generate the shapes of passers by as the dancer frugged around to a reactive music track that ups the tempo the faster you dance.

Last issue **Edge** featured a tabletop game entitled *Phantom Limb*, created by former student Graham Plumb. Using virtual smoke and mirrors the game 'swaps' opponents' hands in an updated version of *Pong*. However, Hamilton says this is often as close to the mainstream game industry that CRD work gets. "Graham's piece is quite unusual because it really is a game," he points out. "Most things would be subverting games a bit more, or taking game language and using it in a different way."

Recommended links

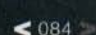
Computer Related Design
www.crd.rca.ac.uk

Computers and Human Interface conference (CHI)
www.acm.org/sigchi/chi2000

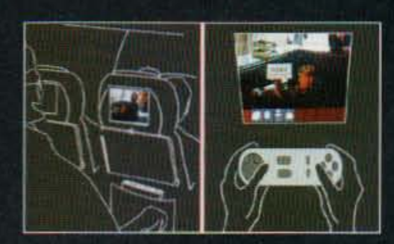
Ideo
www.ideo.com/ideo.htm

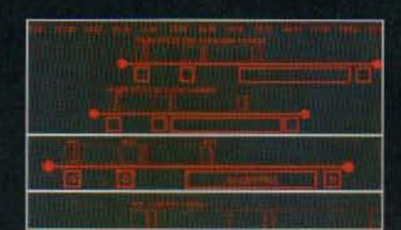
Doors of Perception conference
www.doorsofperception.com

Ivrea (Gillian Crampton-Smith's next major project, based in Italy)
www.interaction-ivrea.it



'Connecting Flights', designed by Ramia Maze and Monica Bueno, is devised for playing during long-haul flights. The game is based around a story, and fellow passengers can be 'bribed' to reveal further information on the plot







Mobile applications

The post-CRD destination for an increasing number of students is the burgeoning number of WAP and mobile content companies, and phone suppliers hungry for fresh applications that will make consumers buy yet more airtime. "WAP sites are just dull Web sites," dismisses Hamilton, "but when you can start to offer services that people want, make them exciting and make them social, then it starts to get interesting."

Hamilton illustrates this with an example of mobile-related work by one of last year's students, Joseph MacLeod, who made a WAP service that 'stalked' the user. "It was for people who didn't get enough attention, so they got this virtual stalker who would phone them up and leave them SMS messages," says Hamilton. Using new mobile phone features such as cell broadcasting, which enables the network to identify which signal area you are in, MacLeod created another variant on the stalker theme. "You actually had to get out of that cell because you were being tracked by this agent," enthuses Hamilton.

A more friendly approach to portable interactivity was taken by Henry Newton-Dunn (brother of 'Bits' presenter Emily). "It's all about location-based stuff," Hamilton explains. "Henry did one which was all about place markers. When you got to somewhere you liked, you could note it down in your PDA and you could recommend it. Other people could access your markers, so you have kind of a *Time Out* by the people, for the people. It even came down to stuff like marking your favourite tree." Since completing his MA, Newton Dunn has been assimilated by a Sony thinktank in Tokyo. "I think he's doing some quite playful things over there," Hamilton says cryptically.

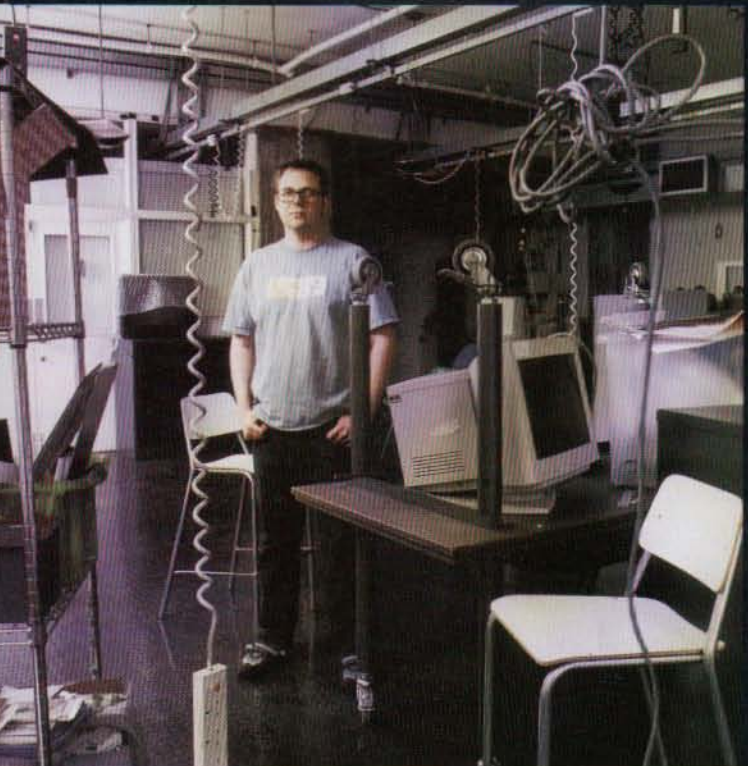
Other options

Given the nature of the MA, many ex-students retain an active role in the creation of interactive public work. "A lot of our ex-students have worked on projects in the Wellcome wing of the Science Museum, which is all interactive stuff," relates Hamilton. "Two have a whole floor of video-projected work." Support has been gleaned from several large benefactors, including Casio, Sony, the BBC and Ideo; the CRD's adjoined research department is funded entirely by outside sources. "They understand what we do, and what our students can offer them," states Hamilton. "Because we've had friends in industry, it really has helped spread our ideas around. We've been really lucky.

"We have quite a few people working at Ideo in London, on lots of projects, from ticket booths to Web sites to handheld devices. All the handheld stuff is really taking off." Outside demonstrations of what the course

The post-CRD destination for an increasing number of students is the burgeoning number of WAP and mobile content companies, as well as phone suppliers hungry for applications that will make consumers buy more airtime

Rory Hamilton
computer related design course leader





Dominic Pullen's 'Juke Pops' gives users the opportunity to have music piped directly into their head via a tasty, table-mounted lollipop

has to offer take place on a regular basis, organised both by the department and current and former students – one such was recently staged by a group of like-minded graduates including Heiko Hansen and Helen Evans in Brick Lane, London. "The students are doing presentations in November at Doors of Perception in Amsterdam, and at CHI – computers and human interface – which is a big American conference. They always go down really well there." Relations with that most famous of American technical institutions, MIT, are also good, with a conceptual synergy between the two departments' directions. "They're much more the 'how we build it', we're much more the 'what should it be, and should it feel like, and why build it?' people," explains Hamilton.

Industry potential

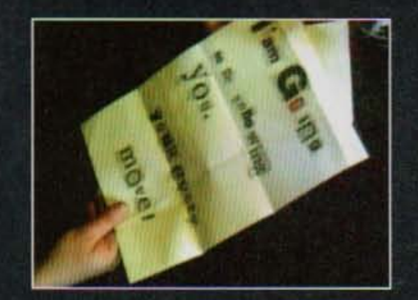
So, does Hamilton feel there is a place for the CRD mindset within the game industry? "I think what the students would find limiting about the games industry is the screen-based aspect of it," he states. "But that could all change as well," he adds. With the broadband dawn clipping over the horizon, massive questions and potentially thrilling opportunities present themselves to the entertainment industries every day. Hamilton feels that once consoles are connected to widespread, high-bandwidth networks, then his students' interest in the videogame field will increase exponentially.

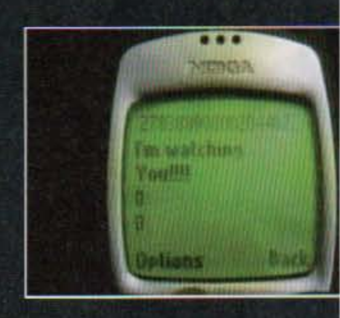


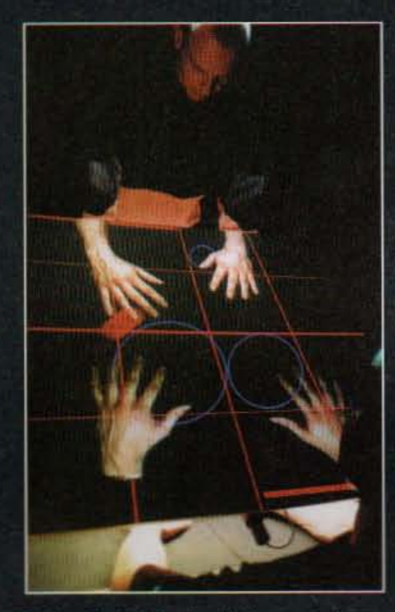
"I think what the students would find limiting about the games industry is the screen-based aspect of it. But that could all change. Once you start to use games across networks and the Internet, then it becomes more interesting"

"Once you start to use games across networks and the Internet then it becomes more interesting. That's the kind of space our students are more likely to respond to," he says. However, he is quick to add that: "Most of our students love games in some way, and are really influenced by them. I think it's the idea that you can use some of the things that









Graham Plumb's *Phantom Limb* presents players with their opponent's hands, neatly subverting established ideas of interactivity in videogames

games do and take it into other parts of peoples' lives; to make using an ansafone or a video recorder more fun and more intuitive, because that's the thing about games – they're intuitive."

CRD's door is open to all-comers, and Hamilton insists that people from the games industry should come and attend open days and see what the students do and talk to them about it. The communication flow needs to begin in both directions, because, as he points out: "I think there'd be a lot of students who'd be surprised by what the games industry might be interested in."

The question is: in what sort of direction can Hamilton see his students taking videogaming? "There's a lot to do with intimacy and interaction with loved ones across distance and things like that," says Hamilton. Nintendo's new Game Boy mobile phone connectors spring to mind as he adds: "Those kind of things could be developed into games. It's always that other dimension, getting people away from just the screen."

The Computer Related Design course's next open day at the Royal College of Art is on Thursday November 23. Call 020 7590 4293 or email crd@rca.ac.uk for details.

talker', developed by Joseph MacLeod, offers nely mobile phone users an attentive 'friend', ho sends them SMS and voice messages



The six degrees

Brief outlines of half-a-dozen design projects from RCA students which serve to underline the ethos of the course and provide an idea of the way videogaming could develop

Joseph MacLeod, 'Stalker' <1

MacLeod devised this WAP service for lonely 21st century types, promising to: "Fill the gap when a person moves from a communication-heavy lifestyle to a communication-light one – after a change of jobs, for instance, or the end of a relationship." Users are sent SMS messages and even called by their Stalker, who leaves something for them to chew over as they fall asleep. Or not, as the case may be.

Graham Plumb, *Phantom Limb* <2

While on the surface Plumb's creation has very game-like presentation (being based on *Pong* that's inevitable), it is underpinned by strong thoughts about the nature of interactivity. "Rather than using the interface to reinforce stereotypical views of reality, interfaces could be used to break down the perceptual filters we are used to," he explains.

Crispin Jones, 'ZXZX' <3

Bound to raise a smile on the face of any hardened gamer, Jones' 'ZXZX' is designed to take the classic concepts of cheating in videogames to another level. "'ZXZX' offers a way of thinking about the cheating devices available to digital games players," he says. "It also poses the question: what does it mean to cheat or deceive a computer?"

Dominic Pullen, 'Juke Pops' <4

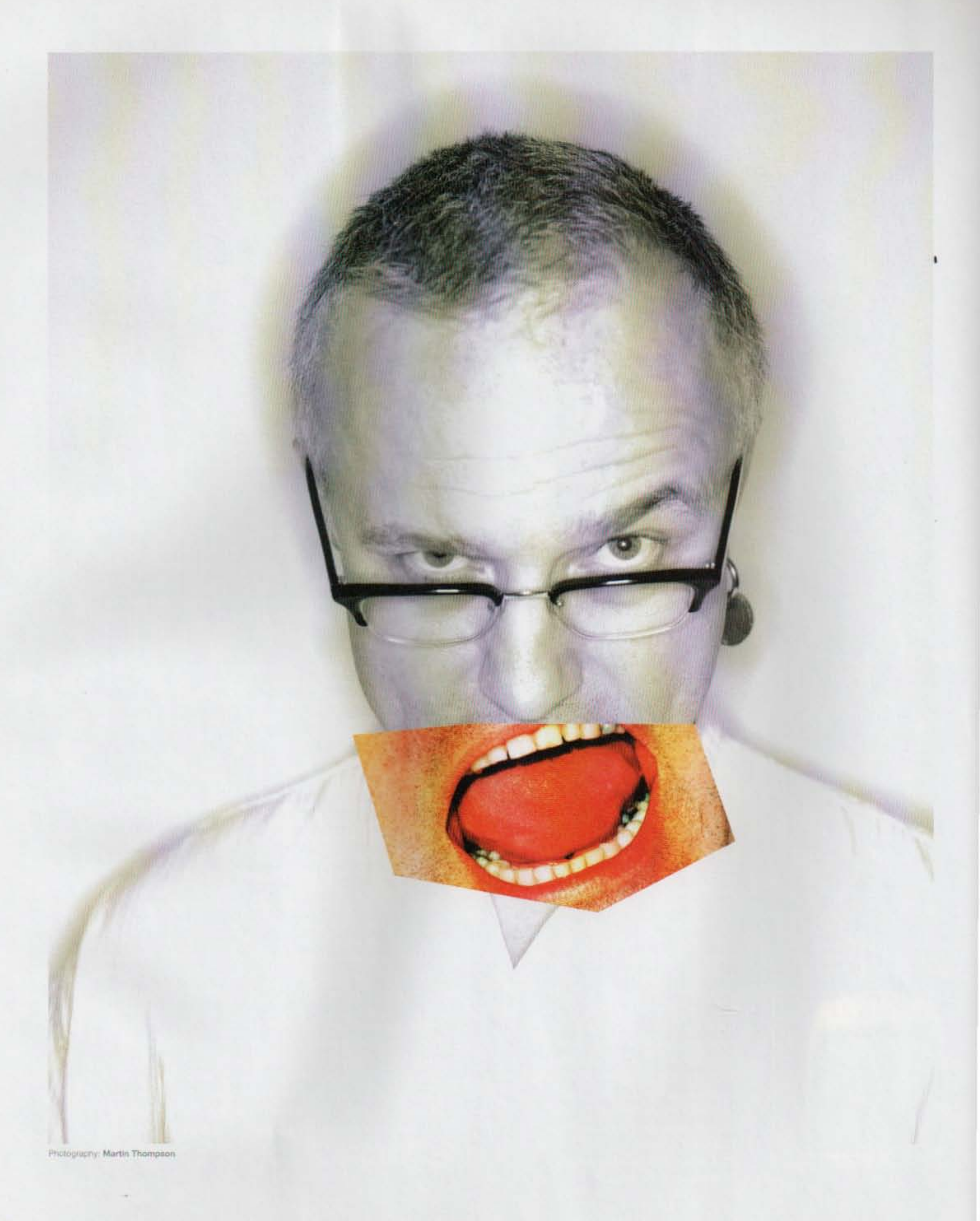
Illustrating well the free-ranging thinking about entertainment that the CRD course generates, Pullen's 'Juke Pops' are inspired by the fad for novelty bars and eateries, such as Soho's Yo Sushi! Users select a flavoured lollipop, take it to their table and attach it to a stalk. The chosen flavour then communicates with the stalk to pipe music directly into the user's head, the tune defined by the lollipop's flavour.

Ramia Maze and Monica Bueno, 'Connecting Flights' <5

Designed for playing on long-haul flights, Maze and Bueno's concept is one that should appeal to many regular travellers: passengers use their entertainment consoles to take part in a mass story, able to discover more of the plot by bribing other players for information. The game is also affected by the movement of the plane, as it shifts through different time zones.

Henry Newton-Dunn, 'Machine Not Robot' <6

With a broad base of multimedia experience already under his wing, Newton-Dunn was keen to take some of those concepts into the physical environment. He describes 'Machine Not Robot' as: "An interactive sound project based on the notions of performance, emotive interface, and group dynamics/communication. I'm mainly interested in engaging the adult, and technologically (not) interested." By moving the machine's arm through space, an interactive soundtrack is generated according to the positions of sensors in its structure.



Photography: Martin Thompson

"word of mouth"

Voice production in videogames is a notoriously hit-and-miss affair, and the role it plays is often overlooked by publishers and developers alike. **Edge** talks to the professionals who intend to change all that, and dispel forever the industry's misguided notion that talk is in any way cheap



Mark Estdale
managing director



Charlie Colquhoun
artistic director



Dean Gregory
commercial director



Laurence Bouvard
actress



Sian Estdale
operations manager

The year was 1981 and a new cabinet was wheeled into arcades and cafés across the country. Some of the older machines with their chipped hardboard and cigarette burns were relegated to a darker corner of the establishment or sent back to their manufacturer to be stripped for parts. Usurped by this vibrant upstart, the angular vectors of *Asteroids* and the two-frame animations of *Space Invaders* were already beginning to look like something from a past generation. *Gorf* had arrived, and it spoke to gamers in a peculiarly human way.

Its vocabulary was far from expansive, and its synthetic tones were hardly subtle, but when *Gorf* teased potential players with the phrase, "I devour coins!", before emitting mocking laughter at their lack of skill and co-ordination, a curious and profound connection had been made. A connection which took videogames into a new dimension of communication had been made. Surely, it would not be long until the use of speech in videogames drew players in with an



emotional intensity unimaginable before *Gorf*.

Voice synthesis has come and gone. Titles like *Meteor Storm* and *Ghostbusters* did things on the ZX Spectrum which shouldn't have been possible. But those crackling and hissing tones which once astounded have long since been replaced with CD-quality sound reproduction. However, 19 years on from *Gorf*, the popular perception is that the general standard of vocal content in videogames is poor.

Fast talking

The notion that a game can be placed in the hands of a professional recording studio to have all the dialogue completed within a couple of weeks is still prevalent throughout the industry. As a result, gamers could be forgiven for believing that all they have to look forward to in the coming years is rushed and hammy voice acting. In a bid to discover where voice production is heading, **Edge** sought out a company among the farms and fields of remotest West Yorkshire to talk about the discipline's origins and future.

Established in September 1996, Outsource Media is on a mission to bring the expertise, professionalism and high production values prevalent in the film and television industries to an area in game development which often rates as something of an afterthought. "It's such a young industry," states managing director **Mark Estdale** from his home, which now doubles as his company HQ. "And when you're looking at a game there are so many elements which need to be brought together. Getting to a developer early lets them start thinking about what the issues are, because generally they haven't even considered them."

The Outsource Media team consists Estdale, artistic director Charlie Colquhoun, studio engineer Mike Timm, commercial director Dean Gregory, and all of them gather around a farmhouse kitchen table to talk to **Edge**. Indeed, a working farm operates just yards away from the recording studio which has been constructed in Estdale's house. At first glance this would appear to be far away from the cutting edge of voice production – a peculiar cottage industry serving big corporates including Sony and THQ. As if to highlight the incongruity, one actor who arrives for a session begins to talk of his role on a new Alan Partridge vehicle, while one of the Estdale children – not quite speaking yet – drops a toy car into your correspondent's hand. This is a family business where operations manager Sian Estdale deals not only with the day-to-day running of the business but provides sustenance to visiting voice artists alongside her twins.

"We looked very carefully at studios in London," smiles Estdale, "but recording here provides many things." It is an idyllic location which has a unique mood. Actors come and go as **Edge** spends the day conducting interviews and touring the studio. "I was concerned at first that actors wouldn't want to come all the way out here but they just keep coming back," Estdale laughs. "In fact, the only problem we've ever had is when the sheep from the farm next door get dipped. It can create quite a racket. But I've even gone out to record them. There are a number of sound effects we can get from the surrounding area."

Specialised language

There is something forthright and appealing about Estdale's take on the industry. Developers are beginning to specialise in key areas such as scripting and voice acting, he argues, but: "Voice production is different from music production and different from sound effects production. They require different skill sets and different focuses." Some developers are learning quickly, he asserts, and are thinking more about their production and post-production, but is this the case across the board? Many of these specialists may be brought in for one project only, some just for consultation. Outsource Media wants to provide a stable production model that developers can rely upon. "We are concerned about quality, and as a reasonably small production company with high values we want to find products where we know there's a real commitment to quality by the developer. Many don't care how it's done, they just want the pain taken away. You can do that, but it's of no

"I hear voices…"

Vocal content in videogames has something of a chequered history, and can range from the sublime to the downright ridiculous from title to title, sometimes with little apparent reason for the fluctuation. **Edge** reviews the best and worst examples from the past and present, and looks forward to some next-gen games that are taking a new approach to the entire issue.

Gorf (coin-op)



Gorf brought speech to the arcades in a startling way. The goading voice could embarrass, cajole and mock the player for his shortcomings. Would the game have been so fondly remembered otherwise?

Meteor Storm (ZX Spectrum)



This 8bit wonder – an *Asteroids* rip-off from an era when patents and IP copyright were commonly ignored within the videogame industry – attempted to speak its name. The result sounded more like an insect breaking wind.

Day Of The Tentacle (PC)



LucasArts has generated a good reputation for its voice production values. Both *Day Of The Tentacle* and *Sam And Max* matched the voices to the characters with an assurance often lacking in other games.

Resident Evil (PlayStation)



One of the titles which has given voice production a bad name. The decision to go with hackneyed B-movie accents and dialogue only served to undermine the tension generated through the game.

Broken Sword (PlayStation)



Largely commended for its use of voice acting for the US version, but *Broken Sword* was less successful in other territories. The French had to suffer the change of the hero's voice midway through.

artistic value to us."

Estdale believes that the industry is currently in a state of flux when it comes to implementing the crucial elements of speech, scripting and audio: "Though many developers are beginning to plan for their voice production at an earlier stage in the development cycle, voice production can still be a knee-jerk thing. A scriptwriter and director on a film work from day one, whereas game companies just throw a script at you at the last minute."

Commercial director **Dean Gregory**, who deals with the publishers first hand, has also experienced too much of this happening. "They know about marketing," he points out. "They're safe with that, but what happens between here and the microphone is a mystery to them."

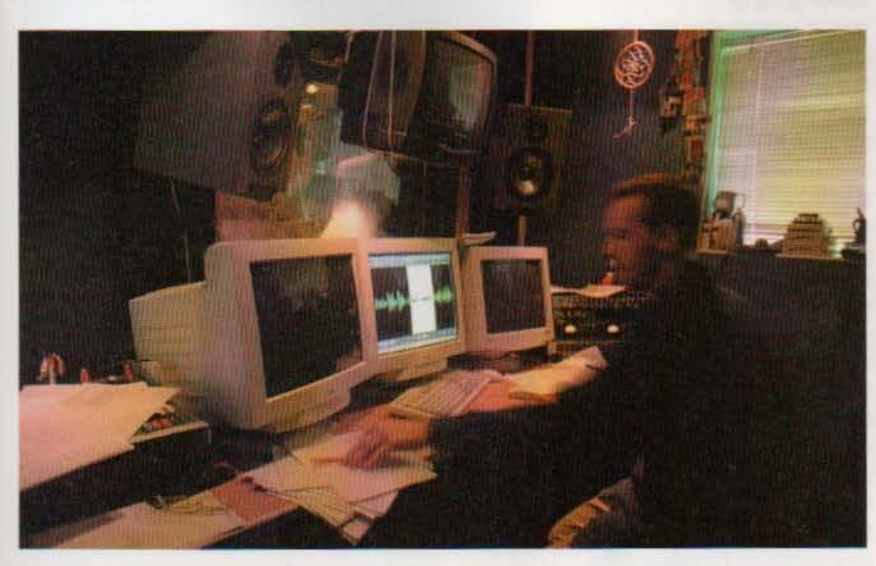
Part of the problem is that the film production model is completely different to that of videogames. As Colquhoun points out: "With films, everything is meticulously planned, storyboarded and scripted." But this isn't as feasible with a videogame. Should coders be put into the straitjacket of creating levels which follow a predetermined plot? What if an inspirational idea changes the mechanics of the game? It is the exception rather than the rule that a videogame comes out at the end of a development cycle as planned.

Other independent voice production companies such as AllintheGame and Matinée see the state of voice acting in a more rosy light. "I've been working in voice production for a number of years and I think the quality is very high," states AllintheGame's director, **Philip Morris**. "Developers usually contact us during the final quarter of the game. With *Tomb Raider Chronicles*, for instance, we recorded in May and the game won't be released until November."

Tim Baldwin, business director of Matinée, has seen many changes over seven years of supplying audio for games, including the speech for *Ultimate Soccer Manager* and *Vanishing Point*: "The stage at which developers contact us varies greatly, but more often now they come to us earlier. Consultancy can be a bit of a dirty word, but we do offer a good service for those who don't have a core competency in this area." He is excited by the changes the industry is going through: "In two years we will have surround sound and the demand for quality will be much greater."

Star turns

Morris has worked with celebrities ranging from Antonio Fargas to Jos Ackland, and has just finished recording with Chris Tarrant for the *Who Wants To Be A Millionaire?* game. "We do everything from a two-



Outsource Media's recording studio is small, but uses equipment associated with music and film production. Estdale keeps two icons in the room: Buddha and Sonic. These represent both the calming and creative sides of the business



Final Fantasy VII (PlayStation)



The game which made grown men weep, but none of the dialogue was 'spoken'. The combination of text and image is perhaps better suited to producing emotional content until graphics improve

Vampire: The Masquerade (PC)



Vampire is an example of the detrimental effects of a poor-quality script. The pseudo-medieval setting resulted in some truly risible dialogue, which no amount of skilful acting could compensate for.

Deus Ex (PC)

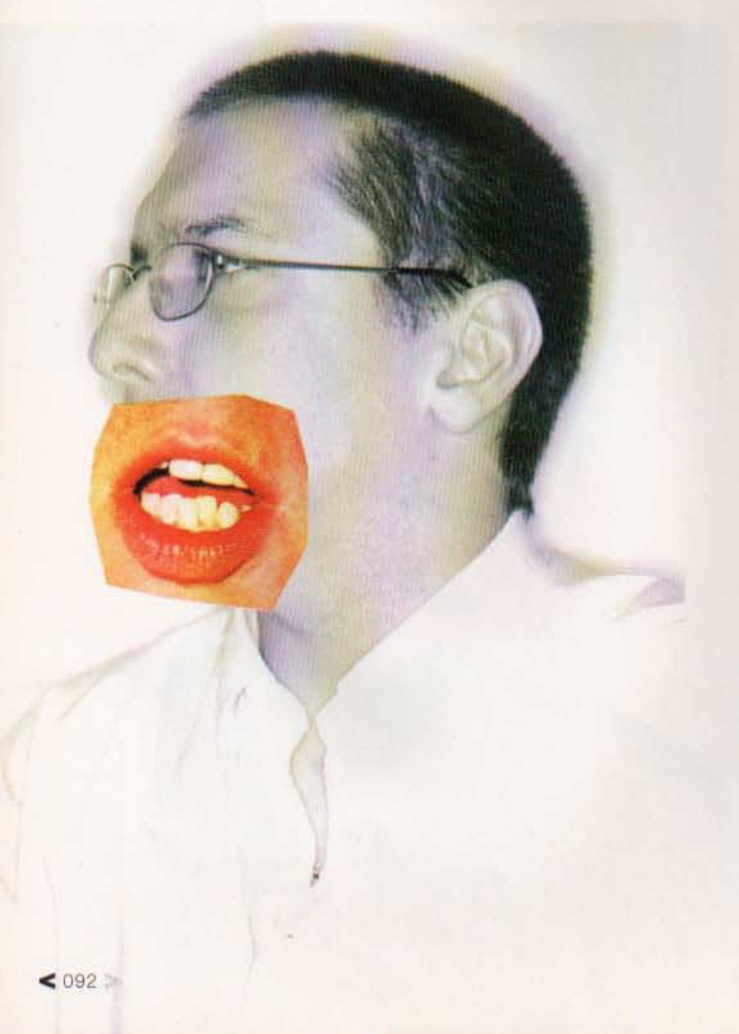


Deus Ex painted a hopeless dystopian future, where the rich and poor stood united in one thing: their terrible overacting. The dark atmosphere came close to being spoilt by the characters' sub-comical voices.

page script to 75,000 words," he explains. "It's now getting to the point where it's film quality. Since my Psygnosis days, when Murray Walker was signed up for *F1*, the big names have come to us. We can also produce a customised casting CD for companies so they can chose the voices they want for their game."

Celebrities are a big marketing advantage if they are associated with a particular brand or sport, but just how influential were Mark Hamil (*Wing Commander*) and David Bowie (*Omikron: The Nomad Soul*) to their products? Finding the right actor is paramount. Estdale is also happy to use stars, but cautions against going for the obvious: "Paul Darrow (Avon from 'Blake's 7') and Tom Baker do all this sci-fi stuff, but they're very obvious. People think: 'Brian Blessed, we'll have him', but it's a bit clichéd."

Nevertheless, principles from the movie industry do still apply to videogames. Quality direction is one of Estdale's main concerns: "It's no good having a director coming to a project where they see the script one week and then have just one day to look at it and then record. Everyone's talking budgets, budgets, budgets, and yet you're maybe talking about a few thousand pounds. If you have a director working on it for a couple of weeks with a cast rehearsing, then the cost is not that much when you consider marketing spends can be over a million quid. What they [publishers] do understand is the massive value which will be added and the impact they're going to have with a well casted, well prepared, rehearsed production."



Talking dirty

Think of voice acting in videogames, and all too often the hammy tones of titles like *Resident Evil* spring to mind. The feeling that this was a localisation rush job is hard to dispel. It was a game created to induce fear in its players, but its B-movie dialogue and amateurish delivery diluted any tension which had previously been built up. The challenge is to improve both the dialogue and the acting to fit in with a game's vision. You need only listen to the curious blend of Ye Olde English and Dick Van Dyke-esque Cockney in *Vampire: The Masquerade* to experience the true horrors of voice acting at its worst.

Big publishers such as UbiSoft try to keep all their voice production in-house to avoid inconsistency. The French in particular are tired of playing localised games featuring poor-quality voice acting. *Broken Sword* was delightful in English, but dreadful in French. At some points the hero's voice discernibly altered after another actor had to be brought in to finish certain segments.

There are exceptions, of course – the Outsource Media team cites LucasArts games for their attention to detail and, more importantly, humour. *Day Of The Tentacle* carried off its blend of caricature and slapstick with a great deal of panache. It was a joy to explore every avenue and try every combination just to see and hear what the characters would do and say. While this seems to work well in games with a cartoon feel, the question is whether the transition can



Estdale's happy group of voice actors come from as far afield as York and London to the countryside retreat. Because time at the mic is expensive, the scripts specifically written and tailored for the industry



Outsource's specialist software even allows for the removal of the tiniest clicks in the voice which often go unnoticed during normal conversation

be made to more serious, hard-edged games such as *Metal Gear Solid 2*.

Outsource Media's casting process is key to its reputation, and Estdale believes things can only get better in this regard: "We have six projects currently in the next quarter where the publisher has organised advanced casting. The next thing is to get them to agree to having different models for recording. We've sat down with publishers and said why we want to do it like this and get in early. They listen. They just said: 'Yes please.'"

The company's main project is currently Infogrames' *Independence War 2*, a game that features a 30,000-word script and 171 characters. Organising the voice for every character and ensuring the right people are cast for the parts is crucial. "When we're auditioning for a game we have a casting director who will send a brief out to all the agents who will then supply us with all the names," outlines Estdale. "We're very strict with agents and we give them very clear briefs. We expect them to send us people appropriate for the job."

Estdale also has an open policy when it comes to auditioning. Rather than use voice artists who are traditionally used for radio and TV commercial voiceovers, he prefers the extremes – anyone from child actors to Royal Shakespeare Company regulars: "Voiceover artists aren't always the best, because they tend to be used to one specific type of performance. We need actors that can get into character effectively and quickly."

Team Soho, which is currently voice recording for *The Getaway*, has taken a different approach in that the characters in the game actually look like the real-life actors that occupy the roles. "We've cast real actors who can play and speak the part," says studio manager **Brendan McNamara**. "So we haven't had any difficulty with developing convincing voices. We record the voices while the actors are playing their parts during motion capture. We then use these sound files to drive our facial animation system."

Silver tongued

The team's quest for realism will hopefully result in a style of dialogue and acting which will be all the more subtle and sophisticated. "We've found that it takes a long time to cast the right actors – in our case at least six months – then we've had to get them familiar with our production process, which has been hard," relates McNamara. "In some situations we've had to make big compromises; the guy we have cast to play Charlie, Ricky Hards, is at least 15 years too young to play the part. Ricky is in his 30s, Charlie would ideally be 45 to 50. However, he's a really good actor and has a great voice for the part, so we got hold of some pictures of his dad and we are going to age up his in-game model to make him more in character with our original vision."

Increasingly, developers are beginning to adopt movie production principles. Scripting and voice acting are just two additional areas which are becoming highly specialised. But the fit between movies and videogames is



an awkward one. Bringing talent over from one to the other will not necessarily achieve great art. Games which have used voice acting successfully in the past have tended to be exaggerations – games painted with broad brush strokes and accompanied with voices which match these burlesques.

But there is healthy optimism. A new era of specialisation is forming alongside the power of next-generation hardware. More powerful animation techniques and greater graphical finesse should result in more sophisticated representations of the human form. This in turn should provide the impetus towards character rather than caricature, a situation voice production agencies are hungry to come into being.

No One Lives Forever (PC) – to be released



Early code for *No One Lives Forever* was notable only for the ridiculous US interpretation of a Scottish accent. After this was pointed out by several games journalists, steps were quickly taken to improve matters.

Titanium Angel (PlayStation2) – to be released



Outsource Media is currently working on this title, and hopes that its production methods produce a convincing package. Photographs of central characters are given to the actors before recording begins.

The Getaway (PlayStation2) – to be released



Sony's next-gen title is perhaps the first to use the actors for both in-game imagery and vocal content. This has raised some problems, however, when auditionees match the physical criteria but fail the voice test.

Edge's review policy

Every issue, **Edge** evaluates the best, most interesting, hyped, innovative or promising games on a scale of ten, where five naturally represents the middle value. **Edge**'s rating system is fair, progressive and balanced. An average game deserves an average mark – not, as many believe, seven out of ten. Broadly speaking, scores correspond to the following sentiments: one: disastrous, two: appalling, three: severely flawed, four: disappointing, five: average, six: competent, seven: distinguished, eight: excellent, nine: astounding, ten: revolutionary.

Videogames on the Edge

Titles slowing productivity this month

The Secret Of Mana

ECTS done and dusted, **Edge** popped into the retro section of Computer Exchange and paid mucho money for a US copy of Square's 16bit masterpiece.



(SNES) SquareSoft

Cybernator

Another trip to CEX as a two-hour delay returning from the *WRC 2001* visit saw **Edge** venture outside Birmingham's train station straight to the local branch.



(SNES) Konami

Perfect Dark

A little slow at first, granted, but give it time and this eventually reveals itself to be a fine companion for those looking for *PD*-related thrills while on the move.



(GBC) Rare

Tomb Raider

Intricate and extensive, **Edge** is suitably impressed by the Game Boy Color's platform conversion of Eidos' monster-franchise. There's life in Ms Croft yet.



(GBC) THQ

Poor Anaemic Likeness

Conversion concerns return with PlayStation2

Talking about shameful PAL conversions in the 21st century comes as something of a surprise. The subject of many a reader letter during the 16bit era (and the primary reason behind many a gamer's decision to go down the import route), the letterbox effect and 17 per cent loss in game speed resulting from an unoptimised NTSC-to-PAL conversion has taken something of a backseat in recent times. Many PlayStation games continue to carry slight borders and usually run at 25fps compared to their full-screen, 30fps US and Japanese cousins, but more often than not the code is optimised to offset other problems.

In all of this, Sega stands tall and proud. Back in the Mega Drive era considerable effort went into making a number of conversions almost identical to the NTSC originals, which is more than can be said for Nintendo. By the time the Saturn arrived, the company was displaying far more respect for its PAL consumers than any other manufacturer had previously bothered to (or since, for that matter). Would Nintendo have bothered to release optimised versions of *Sega Rally* or *Virtua Fighter 2*, for instance? Evidence would suggest otherwise. When the 128bit barrier was broken (and realising that most televisions in Europe were capable of updating images every 1/60th of a second), Sega went one better, becoming the first manufacturer to offer PAL gamers the opportunity to play full-screen, full-speed interpretations of NTSC software. The decision may have resulted from technical issues (developers **Edge** spoke to at the time were at a loss as how to translate an NTSC signal into a full-screen 50Hz image out of the Dreamcast), but the option is there. Regrettably, not all developers take the trouble to include a 60Hz option with their titles, but that's hardly Sega's fault.

Fearing that Sony would neglect to include a similar feature for its Euro PS2, **Edge** contacted SCEE shortly after the Japanese launch, keen to learn the company's position. A few months passed before a press release stated that not only would PS2 games be able to include a Dreamcast-like PAL 60Hz mode, but from now on the option would also extend to PS1 titles. However, the initial batch of PS2 software, it warned, wouldn't necessarily benefit from such a feature.

Perhaps the *Ridge Racer V* and *Tekken Tag Tournament* debacles will encourage developers to take the issue more seriously, as gamers won't tolerate languid conversions in the 128bit age. Don't expect **Edge** to, either.











TimeSplitters

Format: **PlayStation2** Publisher: **Eidos** Developer: **Free Radical Design** Price: **£45** Release: **November 24**

There's something quite arrogant about *TimeSplitters*. While everyone else is running around looking to ape the elements that made *GoldenEye* so astoundingly great, analysing *Perfect Dark*'s sublime use of innovative gadgetry, or trying to nurture the kind of talent responsible for *Deus Ex*, *TimeSplitters* is moving contraflow with all the confidence of an action hero from a mid-'90s Hollywood production.

TimeSplitters isn't a lot of things. It isn't subtle, it isn't pretentious, it isn't visually revolutionary or even instantly great. But give it a little time

The story mode offers oneplayer (or two co-operatively), fun on an uncommonly elementary level. The nine stages scattered between 1935 to 2035 require you to retrieve a specified artifact and bring it back to the designated spot. There are no cut scenes, no layers of narrative, no switches, no puzzles, no gadgets. Nothing but enemies, weapons, energy packs, the odd shield and the artifact, of course. There is no blood of any kind, either, which is initially very odd.

There isn't much furniture, either. The size and structure complexity of the various levels increases the further you get, but the interiors are decidedly empty, with precious little background interaction offered. This isn't an oversight on behalf of the developer – it helps keeps the frame rate up, of course, but it also relates to the game's essence. *TimeSplitters* isn't about stealth. Sure, there are moments in the story mode where a cautious approach is preferable (satisfyingly, the levels alternate in pace), but quit out of the Story mode if you want the game to show its true colours.

TimeSplitters doesn't focus on oneplayer gaming. Connect a multitap, select Arcade mode and indulge in furious deathmatch, bagtag, capture the bag, knockout, escort and laststand games with up to three other players. Suddenly, the nakedness of the levels is put into context – the action is *Quake*-like fast, and running into chairs or admiring the scenery while scrambling away from a particularly vengeful shotgun-toting zombie just wouldn't do. Make no mistake, the enemies (the AI kind – humans tend to be less consistent and more cluttered by emotion) are utterly relentless – camping is not an option: either keep moving or die.

Which is something you'll probably be doing a lot of in the Challenge mode. Only unlocked after completion of the Story option, this sets up a series of scenarios for you to complete within a set time limit. Their premise is even more eccentric than the rest of the game. Expect to be asked to knock the heads off 50 zombies before the 120-second counter runs out using nothing but your fists, or collect lobsters from the greedy hands of restaurant owners from a '50s fishing village. No one said this game took itself seriously.

It isn't perfect, of course, but niggles aren't majorly significant either. For instance, the characters would benefit from a wider repertoire of death animations, some of the explosions leave you feeling underwhelmed, and the oneplayer experience can come across as a little bland (regardless of the title being geared towards multiplaying). And despite the game's pace, the level of detail isn't quite as high as it perhaps should be.

But then *TimeSplitters* isn't a lot of things. It isn't subtle, it isn't pretentious, it isn't visually revolutionary or even instantly

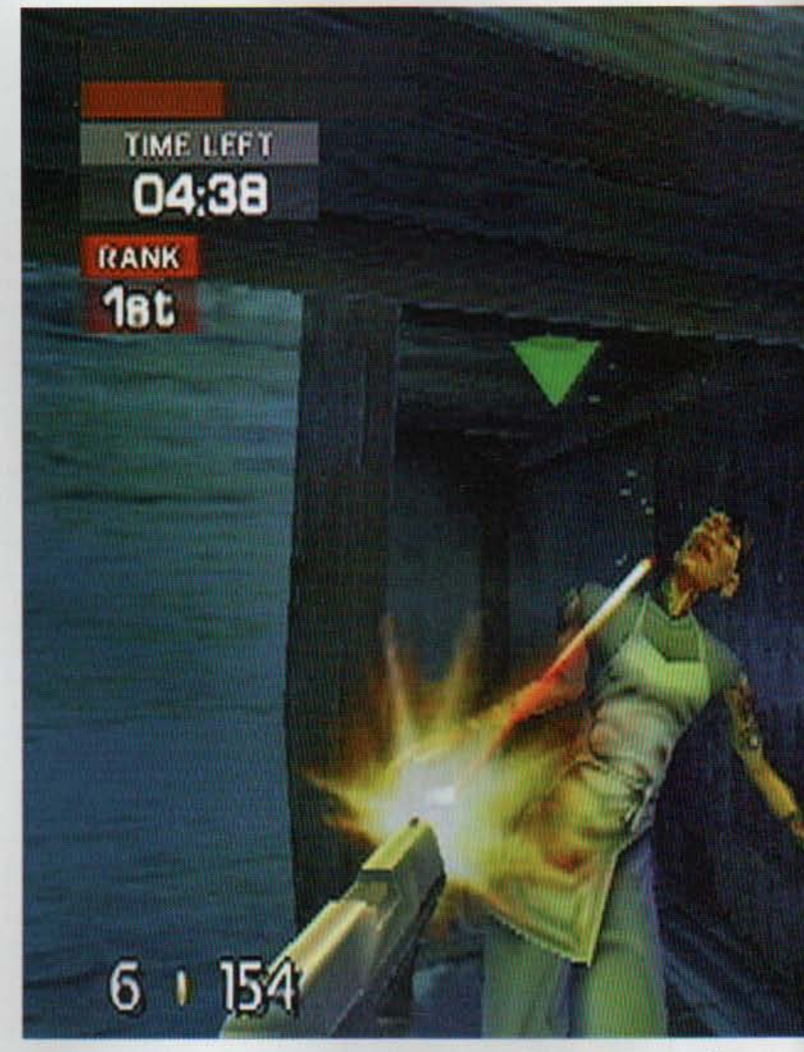








The smooth fourplayer mode has all of the playability you would expect from ex-*GoldenEye* team members. An extensive options list is also a given



The general diversity of the armament is good, and well thought out. The majority of weapons offer a secondary fire mode, with some of them (such as reflective bullets) proving particularly effective













great. But give it a little time. You'll find it exhilarating, unconventional, fluid, wonderfully compelling, painstakingly crafted, and capable of delivering one of the most obsessively playable and instantly rewarding FPS experiences. And sometimes that's just what you're looking for.

Edge rating: Eight out of ten



The characters are some of the most distinctive to have appeared in a FPS to date, their diversity helped of course by the time-travelling nature of the game, and unlike PC FPSs, they're fully animated at all times

The AI is particularly suited to deathmatch situations. In Story mode it's also impressive, with opponents using their environment for cover, but it's not the most advanced ever seen

Changing rooms

Of all the features offered, few can compete with the game's map editor. Simpler – though surprisingly playable – levels are put together in just a few minutes, while more complex, multi-levelled structures demand a longer investment of time. The results, even from minimalist attempts, can be as accomplished as any of the preset offerings. The editing system becomes genuinely intuitive after a couple of attempts and allows control of every aspect of level design (item placement, room orientation, enemy location, lighting, texture type).

Metropolis Street Racer

Format: **Dreamcast** Publisher: **Sega** Developer: **Bizarre Creations** Price: **£40** Release: **November**







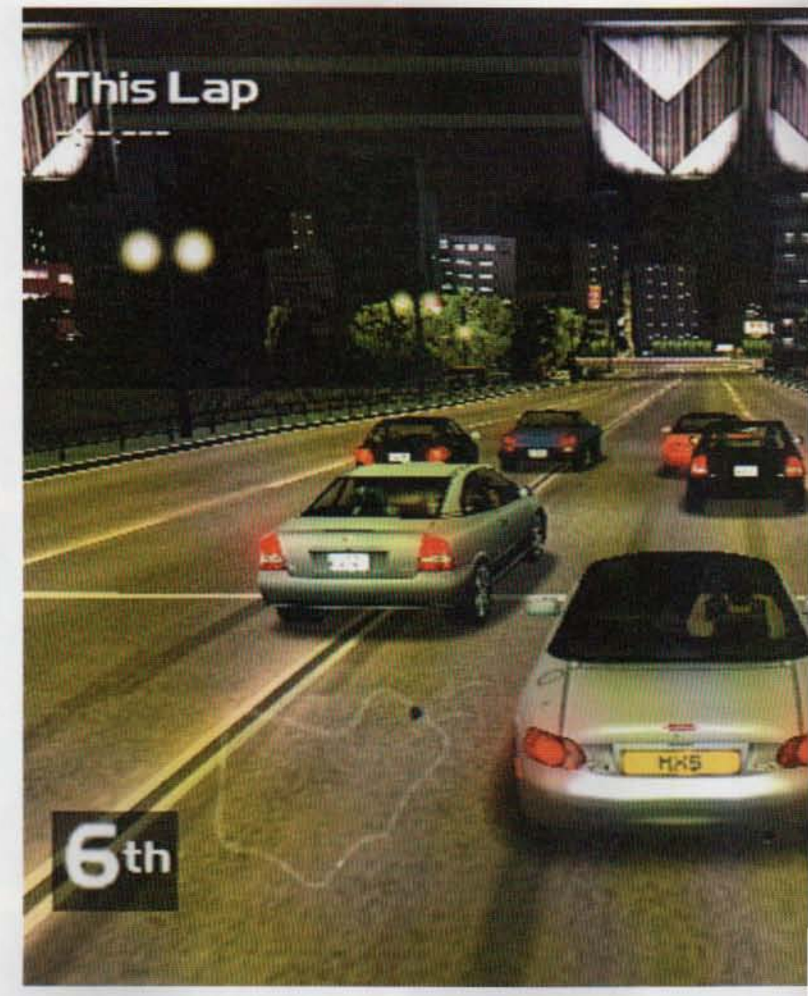
The split-screen mode (top) only subtly affects graphical performance. Tokyo's wide roads (above and centre) are great fun in both one and twoplayer modes

First, a scientific principle: the quality of a driving game is directly proportionate to how good the player feels when he pulls off a perfect corner. Background visuals, the quality of the car models, the huge expense of the licence – these matters fade into insignificance. If you approach a bend and know that the position of the car must be minutely tuned, that the brake and accelerator must be applied with instinctive timing and that the bend has an apex all of its own that must be perfectly exploited, then you are playing a worthy game. *Metropolis Street Racer* treats cornering as a science. No, more like real sport – requiring you to use skill and rhythm fed by experience. Whatever, this is a great driving game. You only have to take a corner well to know it.

Much has been written about the structure of *MSR*, and it turns out that this element is certainly an interesting enough place to start. Forget the usual set-up which separates Time Attack challenges from racing against other cars – in *MSR*'s main Street Racing mode, you have to do both in order to progress. The game consists of 25 chapters, the first 24 of which containing ten driving events each. Before you even get to see another car, you'll need to prove your mettle in a series of timed runs, gaining 'kudos' points for matters such as style and skill, and losing them for hitting crash barriers. Kudos is the key concept here. To progress from chapter to chapter you have to earn enough points, and this will often require attempting the same circuits over and over again, improving your performance each time.

Metropolis Street Racer treats cornering as a science. No, more like a real sport – requiring you to use skill and rhythm fed by experience

The visuals are something of an enigma. On one hand, of course they are staggering, providing unforgettably realistic renditions of Tokyo, San Francisco, and London. Three sets of one-and-a-half-mile regions of each city have been jammed into the game, and these areas have been cleverly exploited to provide dozens of circuits. A list of what you'll see in the game is pointless – buy a guide book to any of the cities, look at the photographs and then look at the game. If it's in the former, it's in the latter. It's a simply awe-inspiring achievement. The only problem lies in shading – even at midday in San Francisco, the sky seems strangely overcast, and huge shadows loom across the street. This is frustrating, because *F355* and *Ridge Racer V* have both shown what 128bit tech can do with lighting – these backgrounds deserve as much sunshine as possible.



The 'Street Race' circuits pit you against up to five other cars. The AI drivers are skilled yet overtly aggressive – often knocking each other out of the running in the fight to get ahead

Metropolis Street Racer is different. It's different because it gets several types of driving game into its oneplayer mode, which some novice gamers may find overwhelming. It's different because it wants you to gamble against yourself and punishes you severely if you fall short. It's different because you have never seen such astoundingly detailed backgrounds before. And the handling is excellent – providing you with solidity and complexity via the standard brake, but also tempting you with its powerslide-hungry handbrake (located on the A button).

True, the frontend is a unwieldy beast, with many minutes needed to even set up a game, but this is hardly surprising considering what's on offer. The Street Racing mode is the main catch, but you've also got a comprehensive range of two to eightplayer tournaments – which ape the turn-based competitions offered by *Track & Field* et al – you have quick

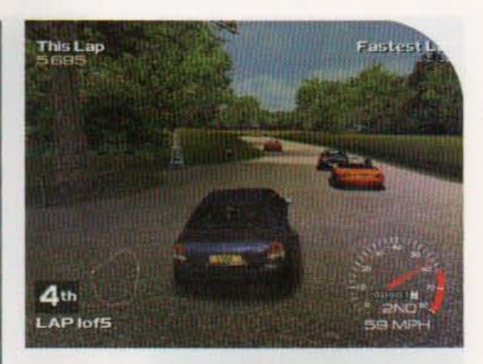
XSS



Weight distribution and wheelspin are both handled well. The latter comes with loads of smoke (right)





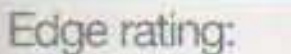




Night driving presents a noticeably different challenge to day events. As in real life a more cautious approach is sometimes necessary

race and time trial options, and there's a showroom of potentially 50 cars to browse through and try out (these open as the game progresses).

MSR, then, is a great strategic challenge – it's a thinking man's game. If that puts anyone off, it's their problem – this was obviously never designed to be a comfortable, run-of-the-mill racer. It is flawed, of course, chiefly in terms of presentation, but it is also thrilling and ambitious. If it's thrown under enough noses in the run up to the end of the year, Sega could be celebrating a happy Christmas, after all.



Edge rating: Nine out of ten





MSR provides excellent showing-off fodder for the well-travelled gamer. Tourist hot spots such as Asakusa's indoor market (above left) and Big Ben (above right) will provoke cries of "I've been there!"



You versus you

If you want more points, more quickly, you can up the stakes against yourself. For example, before entering a Timed Lap event – which just requires you to race around a circuit within a set time period – you can lower the limit by whatever margin you like. If you beat the new one, you get more points. Similarly, you can give opponents a headstart in either 'One On One' or 'Street Race' events, and then prove how good you are by thrashing the opponents anyway. In this way, you are constantly challenging yourself as a driver – there's no touching off against the barriers to get you round corners quicker – or sliding against other cars to get you on the right racing line. Both will cost you dearly in the Kudos stakes.

SSX

Format: **PlayStation2** Publisher: **EA** Developer: **In-house** Price: **£45** Release: **November 24**

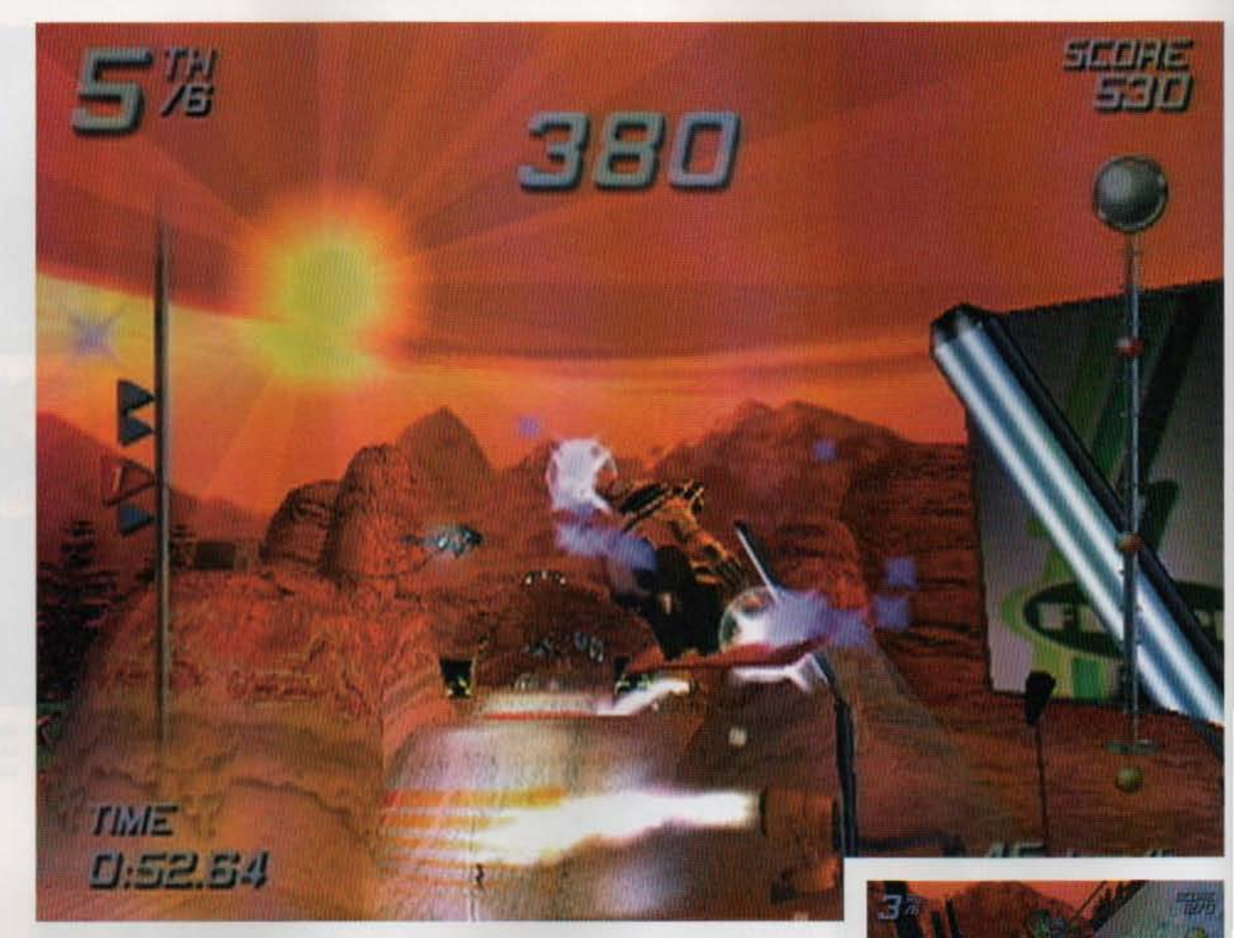








The twoplayer split-screen mode, with no noticeable slow down at all, gives *SSX* a further extended lifespan. Human opponents are marked by heavenly rays



While the player is in the air, tricks can be performed by using the D-pad for turns and the L and R buttons for grabs. The longer the grabs are held, the more points are accrued, and multiple tricks score bigger bonuses

This is a surprise. For an EA Sports title – albeit EA Sports Big, the publisher's new range of 'extreme' games – *SSX* is oddly laden with enthusiasm and personality, bereft of the corporate franchise feel that marks the interminable *Madden* and *FIFA* series. The cartoon persona sits on top of a structure that will be instantly recognisable to fans of the genre. The player chooses a character, a board, and a mountain to negotiate. If you win enough races, or perform enough tricks, more characters, boards, and courses are unlocked.

For an EA Sports title, this is oddly laden with enthusiasm and personality, bereft of the corporate franchise feel of *Madden* and *FIFA*

Strange, then, that despite the atypical EA outlook, *SSX* still fails to graphically astound. It's not that it doesn't have its moments of splendour, but rather that they're just that: moments. Though the draw distance impresses, there are none of the jaw-dropping views that mark out the boarding sections of *Sega Extreme Sports*, and little of the associated realism. A pointed example is in the ice, still picked out in the same non-reflective pale blue that's been used to represent it since the 8bit era. Thankfully, if the visuals come as a slight disappointment, then the handling proves to be anything but.

There are two reasons why *SSX* feels so rewarding. First is the control. The analogue system is impeccably implemented, more so than in anything since the N64 classic, *1080° Snowboarding*. Second is the impact. Every collision is captioned with a satisfyingly appropriate sonic thud, but just as rewarding is the way your boarder responds: skid off an ice ledge and feel your character slam into the compacted snow; tilt the angle of the board to match the contours of the land; career off the frozen powder and readjust again. Since part of the skill involves finding and taking the numerous different routes through each landscape, the mountainous off-road boarding becomes a matter of routine.

Those multiple routes, combined with





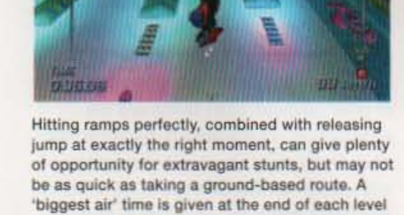


The right analogue stick controls your arms, meaning well-timed punches can knock down opponents

the marked difference between characters and the reward system for each, work well enough to make repeated victories on each course a pleasure rather than a chore.

You'll win races by fractions of seconds, and you'll lose them by less, but either way you'll find yourself tearing down another hillside within minutes. It's addictive and instinctive, and it's that seemingly rare thing: a PlayStation2 title that values entertainment over image.

Edge rating: Eight out of ten



Hitting ramps perfectly, combined with releasing jump at exactly the right moment, can give plenty of opportunity for extravagant stunts, but may not be as quick as taking a ground-based route. A 'biggest air' time is given at the end of each level



A matter of course

The courses are supremely designed, and disparate in more than just texture sets. While the first map carries few surprises and serves as little more than an introduction to *SSX*'s look and feel, the second is a shockingly long six-minute mountainside drop, and level three is a dash through a snow-drowned neon city. By the fifth course, you're speeding down what amounts to a frozen pinball table, complete with ramps, bumpers, and an enormous pair of flippers. It's clear that the emphasis here is on fun rather than simulation, and perhaps this goes some way to explaining the curiously underwhelming imagery.

Sacrifice

Format: **PC** Publisher: **Virgin Interactive** Developer: **Shiny Entertainment** Price: **£40** Release: **November**







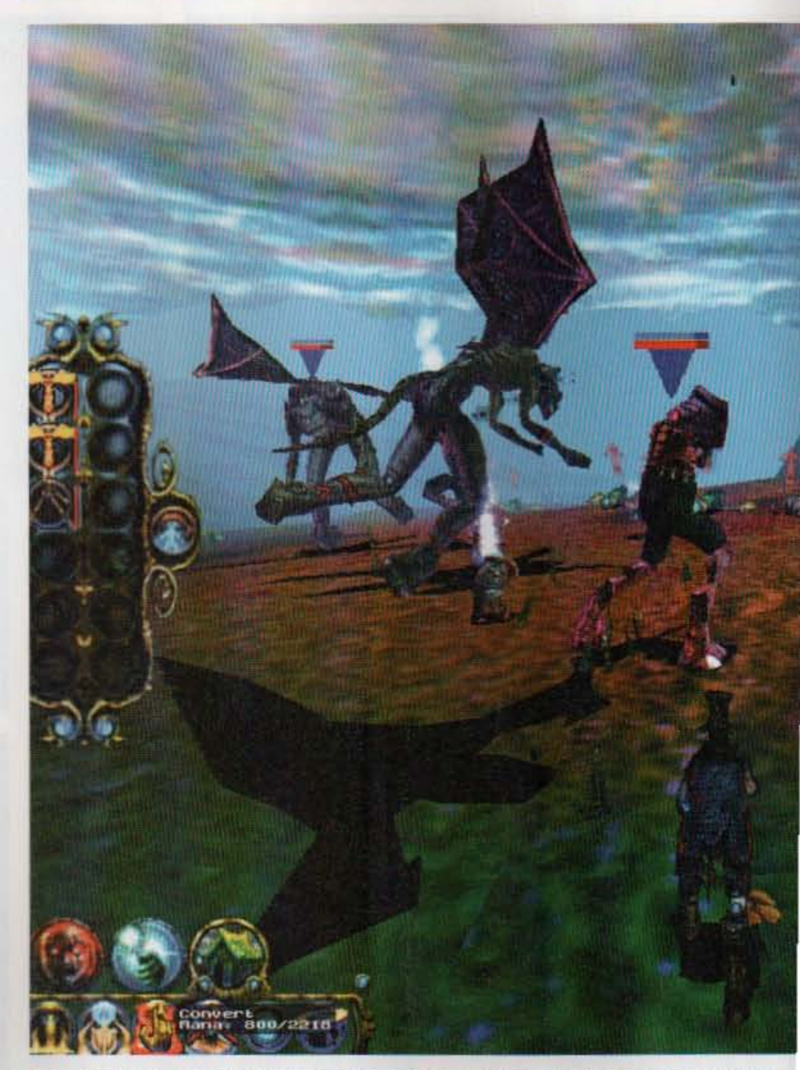
Though spells and strategies vary throughout the battles, winning more souls is always the aim. Once an enemy is slain, his soul must be converted for use

A genre schizophrenic whose personality lies somewhere between an RPG and an RTS, *Sacrifice* ends up playing like a curious blend of Bullfrog's *Magic Carpet* and Julian Gollop's 1984 classic, *Chaos*. The player assumes direct control of a wizard fighting in the camp of one of five gods. The task set varies along the route of the oneplayer game, but usually involves destroying another wizard's creatures and, eventually, their altar. By creating monsters, the player can command them to attack enemies and then move in to capture their creatures' floating souls. These souls form the game's currency, and can be spent on stronger creatures, which in turn will win more souls. Eventually, the scales of conflict become tipped so far a rout is inevitable, and the level is won or lost.

Three main types of spells exist in each wizard's inventory. The first set enables the player to attack and defend personally, to launch fierce attacks in the middle of the action like a thirdperson shooter. The second set creates creatures to do the player's bidding, providing the player has enough spare souls to do so. Spell casting also requires mana, and that's where the third set, the structure spells, are used. The most useful of those will build a shrine around one of the landscape's natural mana springs, boosting the speed at which the player can cast and recover. The war is one of attrition and strategy, with brute force often needed to capture



The task set varies along the route of the oneplayer game, but usually involves destroying another wizard's creatures and their altar



Though each wizard can unleash some devastating spells, the clever tactician in *Sacrifice* will hang back from the battle, letting their army do the work and only entering into the fray themselves when necessary

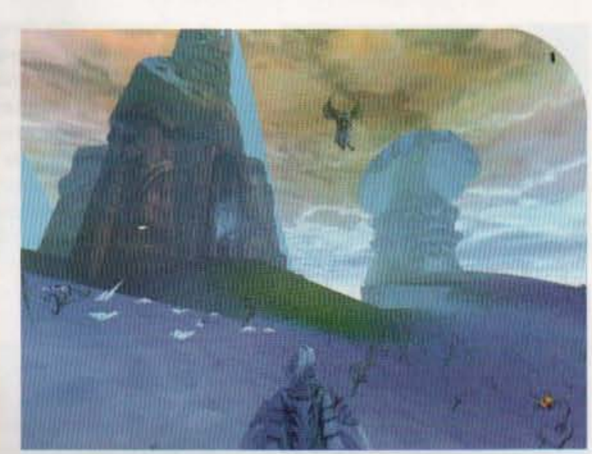
the vitally important springs from the clutches of rivals.

The imagery here is outstanding, if not immediately aesthetically pleasing. It's not that *Sacrifice* is conventionally beautiful; sometimes the polygon characters seem crude, and the landscapes are functional, but never spectacular. The attractiveness comes from the successful importing of an otherworldly magic, particularly in the populace, who either parody or knowingly sidestep the clichés of a generic fantasy universe. Sure, there are the dragons and the trolls of RPGs past, but most of the time armies of asymmetric, unrecognisable, and frighteningly warped creations flank each wizard.

Even when old favourites appear they're recreated with a startling and innovative style, reinvented to fit in *Sacrifice*'s world. They're also individually voiced, so while a few of your charges might follow orders with a cheery acknowledgement, often they'll whine or offer sarcasm. Later levels see the introduction of multi-souled creations who have much more of a psychotic rumbling enthusiasm for the destructive job at hand, and growl deadpan responses in deathly tones. They're also exceptionally big, and thus easier to spot and control in times of conflict, but that merely serves to underline *Sacrifice*'s slightly unwieldy character command system.

The game works best when your wizard hangs back to control the action as a general, but viewing the battleground and selecting units is difficult thanks to the lack of an RTS-style overhead view. In multiplayer, where the experienced Sacrificer is likely to spend the majority of their time, it's irrelevant, because all players are at the same disadvantage. When up against the computer, the disability is more marked.








When you feel your army is strong enough, you may begin the final assault on your enemy's altar. Desecrating the structure involves a ritual which takes some time. Since the process can be interrupted, it's important that the enemy forces can be kept at bay. If the ritual is successful, then you are victorious

Sacrifice's main problem, though, is that while those whose first love is strategy and second is roleplaying will inevitably find this a work of genius, its charms are so specific that they'll bypass a lot of people completely. While the game certainly isn't immediately engrossing – some will find the mission structure repetitive, and the occasional strategic stalemates dull – gamers who manage to break into Shiny's fantastically warped universe won't want to escape for some time.

Edge rating: Seven out of ten




Beginning at the end

Sacrifice's oneplayer narrative begins at its end: the game is played through as a doomed retrospective look at events gone by. It's a good story, cleverly told, and centres around your interactions with the five gods who vie for your affections – Persephone, Charnel, Pyro, Stratos, and a familiar (and bizarrely camp) earthworm, James. Their increasingly violent bickering takes place on the level-selection plain, where those who you've yet to alienate will offer missions with experience points and skill boosts as your reward.

Dino Crisis 2

Format: **PlayStation** Publisher: **Capcom** Developer: **In-house** Price: **¥5,800 (£36)** Release: **Out now (Japan) November 24 (UK)**







The dual shock controls have been improved to make dispatching enemies less frustrating. The 180° turn and auto aim function are smooth and fast

In December 1993, Sony's great grey hope was being demonstrated to developers for the first time. They were treated to the sight of a fully rendered Tyrannosaurus Rex head which could be animated in realtime via a joypad. Attendees were impressed, and duly spread the word of the 3D revolution.

By comparison, the T-Rex head demo looks lame next to the multitude of excellently modelled and animated dinosaurs encountered in *Dino Crisis 2*. But this is nearly seven years on, and that demo also serves to show just how far the PlayStation hasn't come. Though Capcom's sequel to the critically acclaimed *Dino Crisis* is a slick, professionally produced package, there is something rather tired at its core.

The plot is typical survival horror fare, and includes all the usual suspects: evidence of a biological accident, damaged and deserted buildings, dead bodies littering every location, and the prospect of having to save the world from total destruction. Even given that **Edge** played through with Japanese text, the back-story, which is delivered after locating Dino Files, can be second guessed. Would it be cruel to give away the ending? Probably not – gamers have already been asked to prevent a nuclear launch many times before.

The puzzles also lack imagination. Expect the onset of déjà vu when you round a corner only to encounter the now-obligatory malfunctioning lift mechanism or rusty fusebox. Flashing areas on the map will even point the intellectually disadvantaged to the crux of the problem.

Capcom's sequel to the critically acclaimed *Dino Crisis* is a slick, professionally produced package, but there is something tired at its core

The opportunity to switch character (between Regina and Dylan) at key points is worked in well, and their differing arsenals require the player to tackle areas in a variety of ways. However, this is hardly an element seasoned gamers will be excited by, and has also become something of a cliché.

But these are flaws which have been levelled at all Capcom's survival horror titles which have subsequently enjoyed massive sales. The punctuated action sequences, shock tactics, and simple problem solving is clearly a mix which has appealed to many.



Explosions can be dramatic once weapon upgrades are made. A tremendous range of weapons are available thanks to the credit system which has been implemented. This adds motivation to the blasting

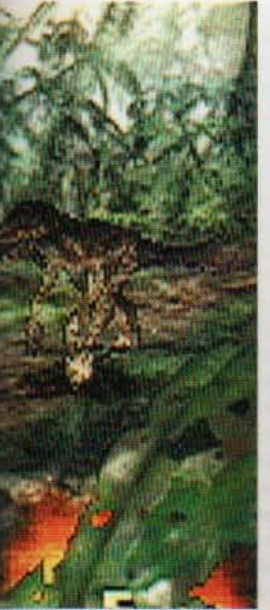
Indeed, criticisms that the original *Dino Crisis* lacked pace and action have been answered.

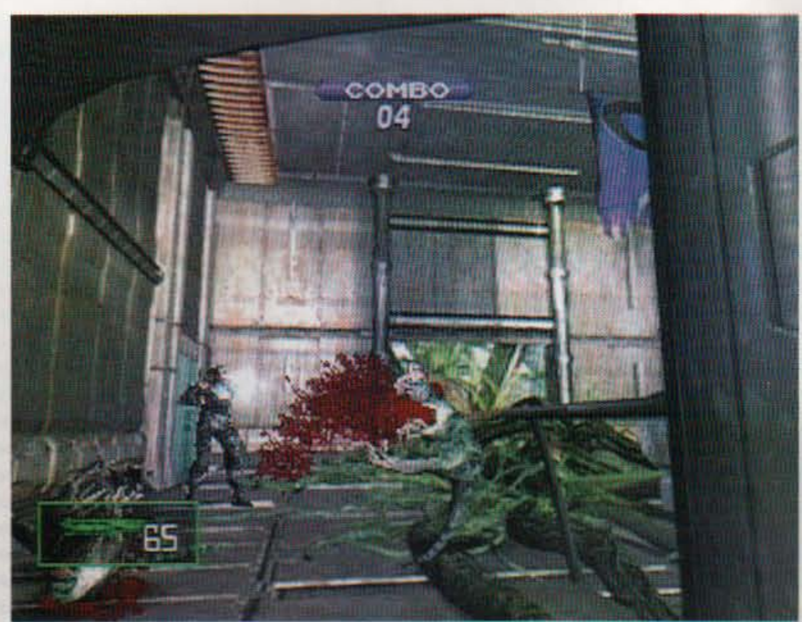
A tremendously well-implemented credit system results in the player being rewarded for shooting prowess, and puts an end to miserly bullet hoarding. Kill several dinosaurs and points are credited to the player. Combos and 'no damage' bonuses are even rewarded once a particular area has been cleared. The credits can then be exchanged at a save point for weapons, medi packs, ammunition, and an assortment of tools including body armour and credit multipliers. This is a factor which makes the player welcome, rather than resent, respawning monsters.

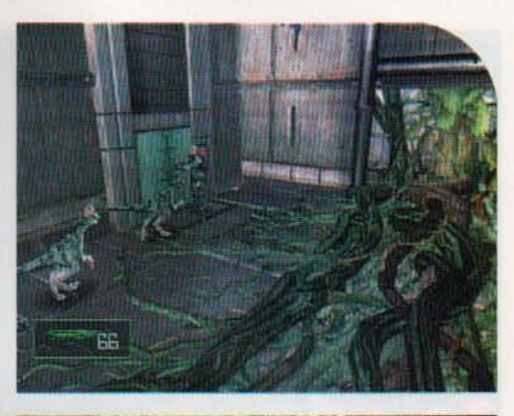
Also highly praiseworthy is the general design of the levels. New areas are opened at regular intervals, and though some backtracking is required, this isn't as onerous as in the previous *Dino Crisis*. Save points are provided at sensible locations, and the addition of the occasional subgame makes for a refreshing change of pace.

What *Dino Crisis 2* does incredibly well is take all the elements from the survival horror pantheon and hone them for popular consumption. There is nothing startlingly original here, nor are their any moments of euphoria when a new area is accessed – you just happen across them and get on with it. Even the underwater sequence, which is well presented and excellently executed, is not enough to submerge the feeling that corridor-based survival horror has hit something of a creative dead end.

Edge rating: Six out of ten









Restarting after a particularly vicious mauling is, thankfully, not a common occurence. Health packs can be purchased at reasonable rates

The usual locations are, of course, provided. What would a survival game be without a medical facility?



Successful subgames

There are three subgames included in *Dino Crisis 2* which, though simplistic in nature, provide an enjoyable reprieve from the corridor wandering. Once your gunship has been repaired, travel to a new location is required. Pterodons and mosasaurs attack your craft with vicious tenacity. Dylan must keep them at bay while Regina steers the craft to safety.











The underwater section is particularly impressive, with a wave effect washing across the screen. However, the formulaic game mechanics remain unchanged

Midnight Club

Format: PlayStation2 Publisher: Rockstar Developer: Angel Studios Price: £45 Release: November 24









The game's two cities, New York (above) and London (right) are recreated with reasonable amounts of polygons, though, ultimately they can't hide the eventual gameplay repetitiveness



Tune it up

While the action in *Midnight Club* eventually becomes overly repetitive, at least the same cannot be said of the music, which for once appears to have been selected with great care. Renowned artists Dom & Roland, Derrick May, Aril Brikha, and Surgeon all contribute to the game's 15 tracks, which suit the on-screen action remarkably well. But you'd better like techno, or face having to listen to the whining that constitutes the cars' engines.







It may contain more than 75 races and 17 different playable vehicles (most of them initially locked) but you can't help noticing that the game looks not unlike a PC title from a few years back (or *Midtown Madness 2*)

Midtown Madness – sorry – *Midnight Club* plunges you into the illicit world of London and New York's forbidden nocturnal racing, where insomnia-suffering, souped-up four-wheeled-machinery-owning individuals challenge each other to race over set distances while attempting to avoid running into local law-enforcement units and civilian traffic. In Arcade mode, either of the cities awaits your presence, though it's worth noting that until you play through the New York head-to-head option (a linear set up where waypoints must be passed in order), and the waypoint event (checkpoints can be hit in any order while racing against four to six vehicles), only the cruise and capture-the-flag options allow you to screech you way around England's capital. But at least you can always get a friend to join in the flag-hunting fun.

The Career alternative sees you cruising the New York streets in a bottom-spec machine looking for hookmen – fellow Midnight Clubbers handily identified on the map by prominent red arrows. Find one, follow him/her to a challenge point, and you automatically enter a waypoint race. Win and their mobile number is yours, so that should you wish to deprive your rival of their more powerful, better-handling set of wheels, you need only call and emerge victorious from a head-to-head affair. When a particular hookman runs out of machinery (there are three per class), simply locate another one and repeat the process. The city champ should eventually appear, who, if beaten, becomes your ticket out of the US and an ocean closer to world champion status.

Previous frame rate issues in preview code have thankfully been mostly eradicated (at the cost of traffic density – though you can alter this), but despite some occasionally brave texturing, the environment remains rather bland throughout, looking undeniably like a PC title in need of a patch. On the plus side, the building density is high and opponent AI is fittingly aggressive, while car handling suits the game style, with later, better and faster models increasing the enjoyment stakes.

Yet, like *Smuggler's Run* – the developer's other PS2 title – the lack of diversity takes its toll. By today's market standards, its limitations are too readily exposed. This won't be the most essential title on November 24, then, but while it lasts, it can be enjoyable.

Edge rating: Five out of ten

Smuggler's Run

Format: **PlayStation2** Publisher: **Rockstar** Developer: **Angel Studios** Price: **£45** Release: **November 24**

Walk into US superstore K-Mart with a youthful appearance and a craving to buy a game containing a gun, a lascivious woman or the depiction of bloodshed and you are likely to be disappointed. Increasingly, 'M'-rated games in the States will not be sold to anyone who cannot provide the adequate ID. Some stores even refuse to stock them. *Smuggler's Run*, with its focus on transferring anything from drugs to frozen kidneys across the US border, seriously jeopardises its chances of reaching the masses as a result.

The content may sound morally dubious, but the game's arcade mannerisms, pleasurable car handling and bold, bright arrows soon render what 'plot' lies behind the diverting mechanics of the game as something of an irrelevance. Indeed, after ten minutes of play, driving as quickly as possible from A to B becomes your only obsession, and you may as well be delivering a birthday cake to an elderly relative as a key of coke to the pusherman.

The real beauty of *Smuggler's Run* lies in its immediate car handling characteristics and impressive landscaping. To successfully reach your checkpoints it is necessary to learn to ride the bumps and hollows of the landscape effectively while avoiding police and the occasional rival gang member. Finding the route of least resistance rather than the most direct one is a major part of the challenge.

It is ironic, however, that in a game where you are given the freedom to roam anywhere in your environment, the mission structure should be so linear. A series of 36 levels are available, but you must complete them in strict order. Apart from a couple of quick race options this concludes the oneplayer experience, and there is little to go back to bar improving on previous times.

Smuggler's Run smacks of a game which has had a great deal of effort expended on its physics engine and raw playability, but very little on drawing up an overarching design. The missions are too similar in nature, and although cresting the largest hills to marvel at the draw distance or causing the police untold trouble can be great fun, tedium starts to set in earlier than it should. Surprise elements such as unlockable areas, power-ups or weapons would have greatly improved the ride.

Edge rating: Six out of ten









Draw distance can be used by developers to demonstrate the ingenuity of their coding. In traditional track driving games the effect may be visually impressive but does little to improve gameplay. *Smugglers Run*, however, uses the technique to great effect. A stream of coloured smoke marks the point at which your cargo must be collected. This fluorescent trace can be spotted from great distances and actually enables the player to plan a route towards their destination





Damaged in transit

Though there are four types of mission in *Smuggler's Run*, the tasks become repetitive after lengthy play. The most common is moving cargo from one drop point to another, indicated by *Crazy Taxi*-style floating arrows. Simple races, knocking down radar pylons and tag games occasionally spice things up, although all consist of getting to the goal in the quickest time possible. Cleverly, the cargo is damaged every time you take a knock and the resulting money lost gives some incentive to replay old missions.



Baldur's Gate II: Shadows Of Amn

Format: **PC** Publisher: **Interplay** Developer: **Bioware** Price: **£35** Release: **Out now**





Lightening proceedings

Despite the tendency for roleplaying games to take themselves very seriously, the epic scope of *Shadows Of Amn* is invigorated by several light touches, ranging from the Umar Witch Project to a bloodthirsty talking sword, which it transpires was a failed warrior in life. Far from overwhelming the serious tone of the game, such instances serve to reinforce the notion that the action is taking place in a world which really does exist beyond the endeavours of your characters and their goals.



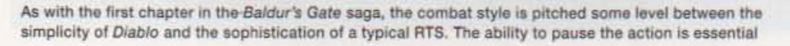








Apart from the dragons, demi-Liches and magic items that are scattered around the realms, chief among the rewarding features of the game are the character-specific subquests that reward players with a stronghold, followers, or another alternative



As with the first chapter in the *Baldur's Gate* saga, the combat style is pitched some level between the simplicity of *Diablo* and the sophistication of a typical RTS. The ability to pause the action is essential

The follow-up to the critically lauded and commercially successful *Baldur's Gate* continues where the last instalment left off. Set in the Forgotten Realms AD&D world literally hundreds of hours of gameplay are devoted to the development of a narrative which encompasses betrayal, gods of murder, shadowy political organisations, errant wizards and, of course, dragons.

The intuitive interface and beautifully rendered backdrops all make a more polished appearance in *Shadows Of Amn*, and while the game does suffer from the usual set of bugbears that have characterise the lot of videogame roleplayers down the years – internal inconsistencies such as being able to rifle through drawers and wardrobes without incurring a negative response from their owners – it is difficult to find more fault with it than that.

Anyone who enjoyed devoting a significant portion of their life to immersing themselves in the rich tapestry of the original *Baldur's Gate* will find that *Shadows Of Amn* has succeeded in maintaining the accessible interface of its precursor, while incorporating an even greater degree of complexity below the surface. After a relatively simple introduction, it becomes clear that this really is a gaming cornucopia, with an overarching epic story at the centre of the game surrounded and extended by a wealth of other quests that befall your lead character. The interaction between NPCs in the party with each other and their relationsh with the outside world is just one of the way in which such quests contribute to a sense of involvement in a bigger picture.

Given the current vogue for titles to ship with a multiplayer mode that allows players t set quests for their peers, including Bioware own forthcoming *Neverwinter Nights*, it may be considered a deficiency that *Shadows O Amn* doesn't include such a feature. After al the flexible response of a human moderator allows a far greater sophistication when it comes to character development and narrative structure than is currently possible with computers or consoles. Nevertheless, the game comes closer than ever before to providing players with intuitive access to an expansive environment that responds realistically to their actions, ensuring a sens of fulfilment that more than justifies the massive investment in time needed to complete the game.

Edge rating: Eight out of t

Aiken's Artifact

Format: **PC** Publisher: **Fox Interactive** Developer: **Monolith** Price: **£35** Release: **Out now**

From the very start, *Aiken's Artifact* appears to promise a slick, addictive, and innovative formula. A quick tutorial-style mission introduces an apparently intuitive interface, and is rounded off by some excellent voice acting and a reasonable plot. As Agent Nathaniel Cain (voice provided by Ice T), the player must defend the future from mad scientists, crazed psionics, and the threat of Armageddon, equipped with just a gun, a Department of National Psionic Control (DNPC) badge, and some powerful spell-like abilities called talents.

Unfortunately, the game falls very short of such apparent potential. Combat encounters are fatally unbalanced, with a tricky overhead camera making it difficult to overcome opponents who frequently have attacks that are more powerful than Cain's. It is all too easy to run out of sanity – the resource used to employ talents – while trying to deal with attacks that originate from off screen, and, even with one or two enemies, the combat area quickly fills up with obfuscatory, though pretty, spell effects. The result is frequent and sudden death.

Which continues to be a theme in the many puzzles that populate Cain's world. This wouldn't be too much of a problem were it not for the fact that load times are long and cut-scenes can't be skipped. While the brainteasers vary enormously in character, the underlying theme is one of obscurity. Some require an arbitrary use of talents, with little indication as to which one is appropriate, or indeed any real justification. Inconsistencies of internal logic are also damning. The psychic push talent can move heavy blocks, but can't open the front door of a mansion. For that you have to ring on the bell and choose the correct option from a dialogue tree – again, with few pointers. When clues are given, they are usually long and detailed requiring – in the absence of any in-game journal – notes to be taken by hand.

The succession of combat encounters and enigmas, punctuated only by frequent fatalities and colourful but predictable bosses, serves only to detract from a reasonable narrative, that is fleshed out by some of the best voice acting ever to have graced a videogame. Ice T may not have the most distinguished acting record, but here he acquits himself with aplomb. Which isn't enough to save a game that plays like an afterthought to a multiplayer mode.

Edge rating: Five out of ten







Bosses such as Priscilla Divine (above) need to be overcome by special techniques. Though usually obvious, working these out can be a fraught process during the heat of combat





Switch puzzles (top right) are common in *Aiken's Artifact*, usually with sudden death as the reward for any mistakes, resulting in a stilted experience



While the numerous spell effects and the zoomable camera are glowing recommendations for Monolith's LithTech engine, the net result is a cluttered screen that accentuates the already frantic pace of combat

Multiplayer strength

The strongest suit of *Aiken's Artifact* is undoubtedly its multiplayer mode. Although the talents that initially come with the game are not enormously varied, there is sufficient scope for putting together combinations that make for interesting play, and Monolith plans to release new talents for download in the future. It doesn't reach the heights of *Quake III* or *Magic: The Gathering* – to which it bears a superficial resemblance – but the experience is certainly superior to a oneplayer mode which gives the impression of not having been adequately playtested.

Silent Scope

Format: **PlayStation2/Dreamcast** Publisher: **Konami** Developer: **In-house** Price: **£45/£40** Release: **Out now**









Unless every shot is taken quickly and accurately, time will run short. If shots are missed, reloading is always slow, and often fatal

Shots to the dome

Enemies, picked out in yellow after a short length of time for the benefit of the less observant player, will drop with a single shot to any part of their body. Head shots score accuracy bonuses, though, and are absolutely necessary to quickly remove the bosses, who make scripted appearances throughout the levels. One, the evil (and somewhat dated) presidential secretary 'Monica', can be destroyed with a couple of well-placed shots to the head, or several to her exposed cleavage. **Edge**, courteous to the end, focused on the cranium.



At the end of the first section, the player can effectively choose from one of three bosses, one of whom attacks the player in a jet. There's no such choice when it comes to evil secretary Monica (above)

One shot, one kill: that's what *Silent Scope* comes down to in the final analysis. There's one all-consuming, game-defining moment where you're faced with one enemy, one bullet, and one headshot to make. So what do you do? You watch the seconds tick down as he moves in and out of your sight, you make to squeeze the trigger then think again, you shake, settle, pause, and fire. Then, as the camera tracks the bullet's flight, you hold your breath, and... it either hits, or it doesn't. It's victory, or it's game over.

The conversion of *Silent Scope* from arcade smash hit to home console was never going to be as difficult as first imagined. The coin-op version features a screen set into the scope of a full-sized sniper rifle as well as a screen showing a wider view of proceedings, but it's a misconception that the crowds drawn by *Silent Scope* upon its '99 release were attracted by the technology alone. Sure, they came for the peripheral gimmick, but they stayed for the gameplay. All Konami had to do was find a way of translating that same dynamic from scope to joypad.

The result is a circle representing the scope, within which everything is magnified. Pressing and holding a shoulder button lifts it temporarily, enabling swift movement of the cursor around the environments. Aside from that, the game plays like a nervous, yet less frantic, *Time Crisis*. It begins with the player picking off terrorists from a rooftop vantage point, then progresses through the oft-used settings of the ultraviolent road trip and the villain-infested warehouse.

Despite the occasional choice of route, *Silent Scope* remains thoroughly on rails and pre-scripted throughout. There are innovations aside from the interface, though; the night section, in which your scope acts as a night-sight, is a reasonable idea, but ultimately flawed in execution. Clues to the location of enemies in the shadowed black become more and more minimal, until scoring highly – or even just surviving – becomes a test of memory rather than skill.

This is a minor point, though, and since this is something that gets better on replay, it's forgivable. After all, it won't take most players long to complete the game, but *Silent Scope* is all about high scores through high accuracy. That's what Konami needed to port to the consoles, and the one shot, one kill moments of euphoria and despair crystallise this as a success.

Edge rating: Seven out of te

Medal Of Honor Underground

Le Mans 24 Hour

Format: **PlayStation** Publisher: **EA** Developer: **Dreamworks Interactive** Price: **£35** Release: **December 1**

For all the flaws of the original *Medal Of Honor*, there was a kind of innocent joy in entering its World War II spirit to take on the might of the Nazi war machine. The sequel wisely sticks to the *Commando* comicbook kitsch, and brings with it minor gameplay improvements.

Though EA claims there have been generous alterations, there are no real changes to the underlying game mechanics. This is a shame, because time spent on applying some of the cosmetic touches may have been better spent improving the more fundamental disappointments with the game engine. Targeting, for instance, is still erratic, and getting snagged in the game scenery happens more often than it should.

Sublime touches of class return, however. Delight in the soldiers who refuse to die quietly. Some will hop away after taking a leg shot, only to outsmart you by limping around a wall and throwing a grenade in your direction. Some guards will even attempt to thwart you during their death throes as they madly spray bullets before shuffling off this mortal coil.

But there are some additions which make *Medal Of Honor Underground* a more balanced and surprising game than its forebear. This time the player takes on the role of Manon, the female French operative who provided the mission information in the first game. Through a narrative which is excellently told with use of Pathe-style footage Manon joins the Office of Strategic Services (OSS), providing her the opportunity to take on missions around the world. This neatly provides the player with a much more diverse selection of environments ranging through Europe to Africa.

Although the general AI of the enemies is little improved, heavy artillery and tanks can now be destroyed on certain levels. This can be a tense affair and intelligent hit-and-run tactics must be employed to succeed. More complex objectives also make for a more interesting experience. Photographing secret plans, protecting associates, and planting explosives are just three of the extra mission styles which complement the action.

With 22 levels, six additional weapons, three difficulty settings, and an enjoyable multiplayer option, *Medal Of Honor Underground* enhances rather than overhauls its admirable predecessor.

Edge rating: Seven out of ten









Most of the game's room furniture can be destroyed. Taking out several enemies by shooting an arms cache can be very satisfying





As an agent of the OSS, Manon is asked to travel to places as diverse as Crete and Morocco. This is a welcome change from gloomy interiors

Stormtrooper stills

There are great touches of humour in the game that serve to lift it above the usual FPS fare. In one mission it is even possible to trap a photographer in the shower before nipping off with her equipment and assuming her role. If you then take photos of sentries, they will play to the camera.



Le Mans 24 Hours

Format: **Dreamcast** Publisher: **Infogrames** Developer: **Infogrames Melbourne House** Price: **£40** Release: **Out now**





The eight championships offer a balanced menu of sprint and endurance meetings. The sense of speed (certainly in-car) for is remarkable – it's reasonably lightweight, but very good, stuff



Expert fourplay

That *Le Mans 24 Hours* is technically impressive should shock no one after one look at these images, but **Edge** can't help but be amazed at the quality of the multiplayer options. In twoplayer mode you might as well be playing the oneplayer version given the amount of detail still present on screen, while the fourplayer mode not only has no frame rate issues of any kind, the draw distance and visual quality is staggering, making this the first quad-display racing game experience that manages to match its singleplayer equivalent in playability terms.









Possibly the third-best-looking DC racer to date (*F355 Challenge* and *MSR* taking the other two slots), *Le Mans 24 Hours* also benefits from tremendous draw distance and a superb day-night-day lighting effect

Before you ask, yes you can. Play the eponymous race in realtime, that is. Deadline duties prevented **Edge** from doing this, though a date has already been set. No that the inability to complete the 24-hour rac affects this appraisal, of course. Besides, the race is also available in ten-, 30-, 60- or 360-minute doses.

Previously developed for PC and PlayStation (with sketchy results) by Eutechny though now in the hands of Infogrames Melbourne House, *Le Mans 24 Hours* impressed at E3 in May and has evidently benefited from further polish since. Particular well thought out is the new structure, with every section of the game – Championship, Quick Race, Time Trial – rewarding you by unlocking extra cars or tracks (there are ten, including different configurations of the same circuit). Also commendable is the AI, which has opponents out-braking themselves into trouble, straying wildly off the racing line, or simply fighting aggressively for position. Less enthralling, however, is the lack of a pit crew and the subdued engine note, but the excellent dynamic weather system steps in to save the day.

Given that Infogrames is rapidly becomin the new EA, it won't surprise you to find the handling model is typical massmarket fare – real pick-up-and-play stuff. Ignore the easies difficulty setting, which comes complete with driving and braking aids, and focus instead on the middle and highest options, the latter pleasingly free from intrusive automation. It's a very forgiving creature – a far cry from the complexity of *F355*'s memorable equivalent but push too far and you'll soon find yoursel swapping ends on the track. And the faster the car, the greater the tendency for the rear tyres to lose traction. It can feel a little distan but ultimately it remains a fine effort at gettin the delicate simulation/arcade balance right it's demanding, but not impossible.

The major disappointment comes from the lack of damage, such an integral part of the real annual Le Mans sportscar race, meaning using opponents as brakes and easing them off the black stuff carries no penalty. As compensation, tyre abrasion and fuel consumption are included, though it's difficult not to remain disgruntled. Still, an exceptional multiplayer option (see box) combined with a massively satisfying singula experience go a long way to remedy the curtailing price of the official licence.

Edge rating: Seven out of te

Midtown Madness 2

Format: **PC** Publisher: **Microsoft** Developer: **Angel Studios** Price: **£35** Release: **Out now**

Since the release of *Midtown Madness*, gamers have been able to get their lunatic urban driving fix in the safety of their own homes from the likes of *Crazy Taxi* and *Super Runabout*. Updating the formula and maintaining the freshness of the original to provide a viable competitor to such titles is no mean feat, and one which Angel Studios, though producing a decent and enjoyable game, has not quite pulled off.

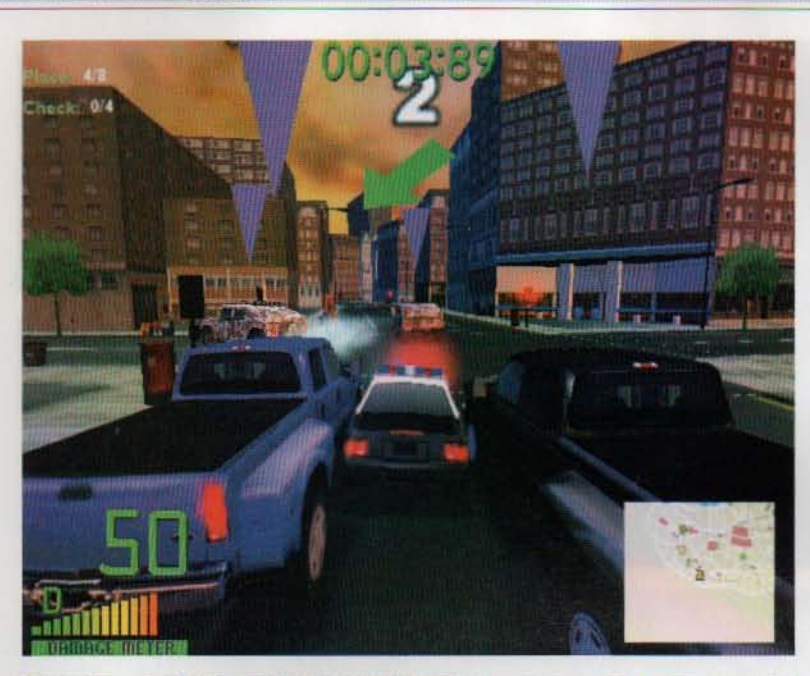
The overblown handling and outlandish range of vehicles are still in place, to the satisfaction of anybody who enjoyed the first game, and with two new cities players will be able to enact a very British version of 'Speed' courtesy of Tower Bridge and the double-decker bus. Indeed London and San Francisco provide rampant scope for pulling off unlikely stunts given the cartoon-like and yet satisfyingly realistic handling, be it doing a ton across the Golden Gate bridge, or terrorising pedestrians outside the Albert Hall. The commentary from 'locals' may be harsh on the ears of anybody who has actually heard an English accent, but is diverting enough.

The real addition is the Crash Course Training mode, which gives you the option of learning either to pilot a cab through the streets of London or to become a movie stuntman in San Francisco. It is perhaps inappropriate to call them training courses, though, as some of the challenges are tougher than the rest of the game, which is relatively easy to crack, for the reward of unlocking new vehicles such as the firetruck, or custom paint jobs for existing models.

The multiplayer mode is also a boon and a significant improvement over that of the original. Throughout the game AI is slightly reductive to say the least, with civilian vehicles occasionally taking an unlikely route to get in your way, and fellow racers either ignoring you or explicitly taking you out. So it is a significant improvement to take on human opponents.

While *Midtown Madness* retains all the delight and flair of its predecessor, it doesn't sufficiently add to the blueprint to represent a significant advance. With many of the new challenges resembling a test of memory more than skill, the game is essentially a series of one- or two-minute challenges. For this reason, it is ideal for dipping in to for a quick fix of vehicular mayhem, but sustained play can feel surprisingly hollow.

Edge rating: Six out of ten





Opposing drivers suffer from some pretty simplistic AI (left), but it is a good idea to keep an eye on the routes they follow, as they can shave seconds off your time







It's not always a good idea to take up the challenge of employing the more extreme vehicles that can be unlocked in *Midtown Madness 2*. The double-decker bus is particularly sluggish, even in the face of competition from black cabs, while the articulation of the firetruck provides its own difficulties. Like Bowser in the *Mario Kart* games, though, this machine is capable of some impressive top speeds if you learn how to deal with the challenging handling – not an easy task with the cops on your tail



Graphical glitches

While the two cities featured in *Midtown Madness 2* are presented in sufficient detail to convey the atmosphere and detailed layout of streets, the game could reasonably come in for criticism over the quality of its graphics. Civilian vehicles are little more than coloured blocks on wheels, and distant buildings are obscured by fog. But photorealism would sit uneasily with the otherwise caricatured nature of the game, and leaping over Lombard Street (or indeed trying to get a firetruck up it) is satisfying enough without it.

Dave Mirra Freestyle BMX

Format: **PlayStation (reviewed)/Dreamcast** Publisher: **Acclaim** Developer: **Z-Axis** Price: **£40** Release: **Out now (PS) November 24 (DC)**









Sadly, *Mirra*'s environment has a tendency not to remain stable for long, with polygonal anomalies occurring frequently. Furthermore, control can be rather fiddly



PS to DC 180 transfer

At the time of writing, finished Dreamcast *Mirra* code is still unavailable for appraisal. However, while preview copies have been disappointing, with slightly smoother visuals (virtually matched by PS code running enhanced on PS2), unstable backgrounds and slowdown are evident throughout the proceedings, it's hoped Z-Axis will have improved matters by the time the game is released. Whether the gameplay discrepancies will also be taken care of is another matter, of course.





Completing the game with a rider unlocks a new character (above), a secret bike, video footage and adds a super move to your trick repertoire

After the success of digital skateboarding it was only a matter of time before the marketing men had their heads turned by other events in the extreme sports family. Enter BMX. Enjoying something of a resurgence over the last few years, this event has its fair share of acrobatic masters, though few as accomplished as the eponymous Mirra, termed Miracle Boy by his peers (nine of whom have joined him by allowing themselves to be turned into triangles).

The central Career mode offers one level, while a further 11 remain locked. Rather than spreading competition rounds throughout the field, these have been crammed into the second half of the game so that the first six levels are challenge-based. Successful completion of predetermined tasks opens new levels, but also acts as a means of acquiring better bikes, learning new tricks, and earning new clothes from sponsors. The levels, most of which are based on real locations, offer a wonderful selection of opportunities for serious injuries, be they on vert, dirt, or street courses, and even post completion you're free to come back with a better bike to try ever more ambitious stunts. Additionally, each of the courses keeps a series of records (longest grind, biggest air, etc) that prove pleasingly compelling once every track is beaten.

Initially, control is decidedly ticklish and some of the tricks feel a little sluggish, though with time things mellow out somewhat – it's still quite rough, but far from disastrous. The trick list is impressive (growing as you progress through the game), and, as you'd expect, each rider has signature moves, including a super trick handed out upon completion of the game. Z-Axis's open trick system works well, allowing you to customise your repertoire, implementing increasingly complex routines, and injecting further diversity into the proceedings.

However, *Mirra* does have its problems: technically, it's not the most polished game around – the environment continually warps as it updates in front of you, and, more seriously, you can sometimes land tricks that have clearly gone horribly wrong, but can also be punished because your wheels are a couple of degrees off the optimum trajectory. It's still a lot of fun and surprisingly addictive, but the title should have been significantly smoother, both visually and in terms of playability.

Edge rating: Six out of ten

Wild Wild Racing

Format: **PlayStation2** Publisher: **Rage** Developer: **In-house** Price: **£45** Release: **November 24**

Three championships, five massive tracks (USA, India, Iceland, Mexico, Australia), 18 challenges, 36 Time Attack modes (which utilise sections of the five tracks), weather and time of day effects, twoplayer option, variety of vehicles. Any good?

Not bad, but not primarily because of the racing – the Championship option isn't the most engaging one around. Furthermore, handling appears to have had an injection of further realism since **Edge** last tried *WWR*, meaning that given the slippery nature of the surfaces you race on, it's a case of inertia driving – great if you get it right, cerebral aneurism-provoking when you don't. Still, at least the vehicles seem a little more lively when bouncing over the bumps.

Attractively, not only do race length and opposition numbers increase as you progress, but shortcuts open up, granting a little more diversity. Further variety comes from the challenge games which unlock new vehicles and upgrades – gather letters scattered over the length of a course; push a giant beach ball from A to B; or complete a stunt course. Ultimately, this is what saves *Wild Wild Racing* from spending the rest of eternity stuck in the kingdom of average.

Edge rating: Six out of ten



There's nothing too spectacular about the way *WWR* looks – it's reasonably pretty, sure, but most of the environments are rather bland, and scenery fades in not as far ahead as a PS2 owner would like it to





The twoplayer experience is decent, but ultimately a lot of the game – including its structure – feels particularly old skool, and hardly next-generation material

Capcom Vs SNK

Format: **Dreamcast** Publisher: **Capcom** Developer: **In-house** Price: **¥5,800 (35)** Release: **Out now (Japan) TBC (UK)**



As usual, a knowledge of the myriad moves available will deliver a deeper, more satisfying experience. Capcom has taken the time to flesh out super moves with a form of motion blur. The effect is stunning





The work of *Capcom Vs SNK*'s background artists is exemplary, and SNK staff seem to have had a lot of input, retaining the feel of both series

With SNK's parent company, Aruze, threatening to cancel all projects, it is befitting that Capcom chose to bestow respect on its greatest rival with such grace. *Capcom Vs SNK* will be to hardcore fighting fans what Pavlov's bell was to his dogs.

Capcom's latest opus stands head and shoulders above all other titles sporting the Versus tag. The ever-present Arcade, Training and Versus options appear, together with a Replay mode. Additionally, a Groove function enables players to select their charge bar system – three levels for Capcom fighters, one for SNK.

Elsewhere, extra balance can be found in the form of a block quotient that attributes between one and three blocks to the characters. The player then has four blocks to spend before each bout, thus theoretically preventing a mismatched contest.

Irrespective of game structure, there is an undeniable feeling of splendour here, as the twin titans of the 2D fighting genre finally meet. *Capcom Vs SNK* is a taut, lean brawler that scores points for pure depth of play. A rich tapestry woven from the finest strands of each company, this is a tour de force that no hardcore Dreamcast owner should be without.

Edge rating: Eight out of ten

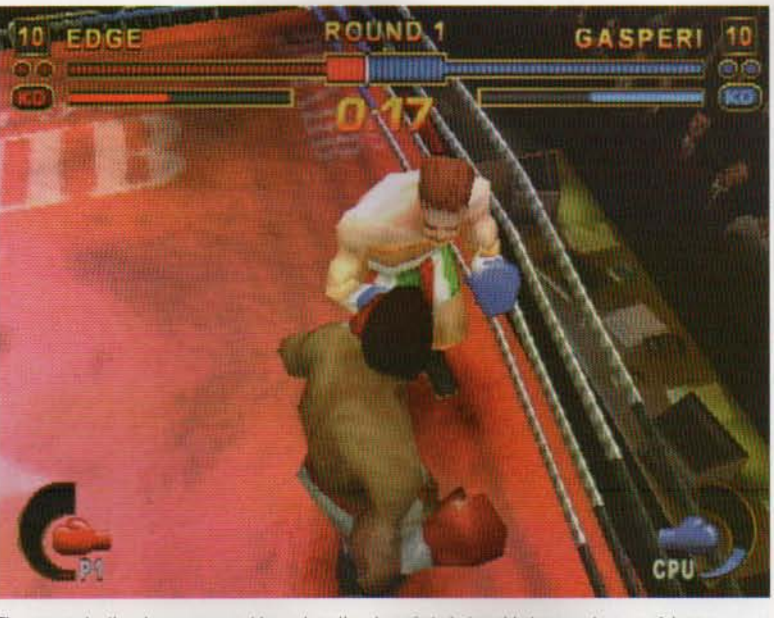
Prince Naseem Boxing

Format: PlayStation Publisher: Codemasters Developer: In-house Price: £30 Release: November 3





When a boxer is on the receiving end of a string of punches and his health gets low, he'll glow red. It's a short journey from there to unconsciousness and the canvas



The gauges by the gloves represent how close the player is to being able to execute a special move. They're filled by dodging punches, an often random process, even for those with lightning reflexes

There were always signs of trouble here, and not just the interminable delay, but also a late switch of emphasis. This title used to be, conceptually, a boxing sim; now, in the wake of the success of *Ready 2 Rumble*, *Prince Naseem Boxing* has been modelled in its image. This has resulted in special punches, less emphasis on realism, and a gameplay disaster.

Fighters have four punches, with the shoulder buttons executing dodges left and right. Each of the characters also carries his own special move, which can only be executed when the charge bar – built by dodging opponent punches – is at maximum. But dodging, even for those with the quickest reactions, soon becomes more a case of trying to second guess your opponent than a question of skill. Away from the core of the game, the Career mode that nominally allows you to create and train a boxer is mildly diverting, but suffers from the inanity of the actual fighting.

There are few flaws in the design of *Prince Naseem Boxing*, unlike its execution. It's impeccably presented, but represents a confused mess of genres, and ends up punching awkwardly between the twin weights of sim and arcade. It hits neither.

Edge rating: Three out of ten

Sega Extreme Sports

Format: Dreamcast Publisher: Sega Developer: Innerloop Price: £40 Release: Out now

The latest play for the attentions of thrill-seeking stoner gamers: throw your choice of spoilt Gen-X-er down mountainsides while fulfilling combinations of six suicidal events. A typical trip might start with your snow chic-clad kid jumping off a hot air balloon on a bungee cord, slipping out of the harness and rushing to a waiting snowboard, before saddling up mountain bikes, which are swapped in turn for gliders that swoop and soar until the final sprint to the finish circle.

Of the half-dozen events, two are initially unavailable, and they're hardly worth unlocking. The bungee jumping is so simplistic it barely qualifies as an event; there's just enough time in freefall to execute the stunts necessary to fill your speed-boost bar. The same is true of the skysurfing, which merely demonstrates *Sega Extreme Sports*' impressive landscapes via a twitchy impersonation of *PilotWings*' skydiving. In other events, the game's beauty goes mostly unnoticed, due to the frenetic pace and concentration required to keep up with your opponents. It's challenging, but hardly extensive, and with no multiplayer it won't hold its target audience's attention. On a scale of suck to rock, this rates as no more than a 'whatever'.

Edge rating: Five out of ten





Mid-air snowboard stunts will fill the speed boost bar, as will performing stunts on your ATV – though it's unadvisable to attempt them while you're in heavy traffic



Handgliding can seem twitchy and uncontrollable at first, but perseverance will lead to a feel of how the glider handles. Even so, this section is almost completely on rails, allowing little genuine freedom

Command & Conquer: Red Alert 2

Format: PC Publisher: EA Developer: Westwood Studios Price: £35 Release: Out now

After EA's purchase of Westwood, the *FIFA* business model has been applied to *C&C*. But annual updates of the realtime strategy warhorse are no cause for celebration, as the same serial flaws have been left in place and the new attractions are cosmetic.

From the interface, to the gameplay, to the AI, *Red Alert 2* sticks to the usual *C&C* plan, which may be instantly familiar to the player and therefore instantly playable, but it's also crushingly routine. New units dressed in resplendent pseudo-Cold War combat gear perform the same functions as the old, while the missions are completely bereft of fresh ideas. A few interface tweaks and graphical touch-ups improve the margins, but cannot hide the fact that *Red Alert 2* is *Tiberian Sun* sporting a Joe Stalin moustache. Even the AI's jobsworth penchant for ignoring huge invasions as long as they're not directly attacking them remains.

Red Alert 2 is briefly engaging, but only as an exercise in retrogaming. The original excitement of *C&C* popularised the RTS genre, and that's the currency this game trades in. But *Red Alert 2* offers nothing new, provokes no surprise, and demands little of the player. Gamers, however, demand more.

Edge rating: Five out of ten



Characterisation is *Red Alert 2*'s strongest suit. The *C&C* formula may have run dry but there's still a certain wry satisfaction to be wrung from watching the Pentagon burn to the ground





(Top) The big gameplay tweak is the ability to enter buildings. Low-grade infantry can be crammed into tower blocks and take slightly longer to die

Crimson Skies

Format: PC Publisher: Microsoft Developer: In-house Price: £30 Release: Out now



Crimson Skies' scenery is built for stunt flying – in fact, some missions depend on it. Good fun it is, too, until the moment you crash into the bridge support and have to wait seemingly forever to restart





Enemy planes start to break up under heavy fire. After a while they'll burst into flames and spiral groundwards as their cowardly pilot ejects to safety

If you once fantasised about being a pirate or a pilot, *Crimson Skies* is a dream come true. The player assumes the role of Nathan Zachary, daredevil pilot, gentleman rogue, and pirate captain of Microsoft's new multimedia franchise. It's an intensely polished adventure based on '20s radio-play-style mythology, and takes you on daring missions across toytown landscapes, piloting simple, pick-up-and-play planes.

The tongue-in-cheek atmosphere is absorbing and fun, but there are deeper problems. The AI of your co-pilots is flawed, and compounded by the lack of any way to direct them at a particular target. Worse, they'll regularly fly into you, and if you die, there's no quick restart. Level loading times are massive, and in a game as thoroughly adrenaline based as *Crimson Skies*, that's almost unforgivable.

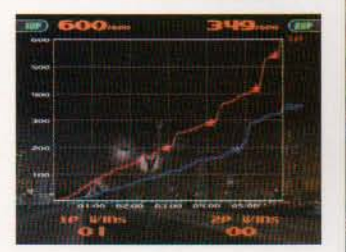
You want to attempt the improbable stunts that should be the signature of a game like this – flying beneath bridges and through tunnels. Knowing that death means more loading forces you to play it safe, but where's the thrill in safety? A shame, because in its variety of missions and sheer panache, the dashing *Crimson Skies* almost steals your heart.

Edge rating: Five out of ten

Fantavision

Format: **PlayStation2** Publisher: **SCEE** Developer: **In-house** Price: **£45** Release: **November 24**





At the end of each twoplayer game, a graph plots the players' progress. The spots mark where a Starmine bonus has been achieved, leading to points aplenty



The dividing line prevents either player's cursor from encroaching into the other's half. If the line moves too far across, then play on one side becomes difficult, but the switching arrows will reverse the situation

Like the majority of puzzle games, *Fantavision* is based around a single, simple premise. Waves of fireworks rocket into the sky, and the player links them into chains, then detonates them before they fizzle out. Fireworks come in three different colours. Only identical colours can be linked, though multicoloured fireworks exist to enable 'daisychaining' – creating huge links of fireworks then detonating them at the same time.

In the twoplayer mode, both players race to score a certain number of detonations. They can only detonate fireworks in their half of the screen, but the dividing line shifts from side to side depending on their relative success rates. The standard oneplayer power-ups, including the super-scoring Starmine mode, still appear, as do ones specifically tailored to the twoplayer experience. Post-game analysis is provided in the shape of a graph showing the relative progress of each player, and – just like the oneplayer experience – it's a game built to instil that 'just one more go' ethic.

Edge scored the oneplayer-only version as eight in E84. The addition of the twoplayer mode for the western release cements *Fantavision*'s status as an addictive, creative, and excellent title.

Edge rating: Eight out of ten

Gradius III & IV

Format: **PlayStation2** Publisher: **Konami** Developer: **In-house (KCET)** Price: **£45** Release: **November 24**

Let's face it: you either love the *Gradius* series or you don't. The core game concept has so many foibles that it is naturally divisive. Some players can deal with losing a life and being stripped of four options, a missile, and ripple laser upgrade, while others find such extreme punishment for veering just a fraction too close to a section of jagged, rocky outcrop too much to bear.

Part III is most definitely the weaker of the two games available here (but then you'd expect it to be, given its original release date of 1989), with, by today's standards, limited sprite animation and musical score. Part IV, originally released in Japanese arcades in 1999, will be the reason most retro fans will want to pick up Konami's unusual PS2 offering. Its higher-resolution graphics, which include gorgeous alien bioforms and spot polygon effects used chiefly for distortion purposes (as opposed to delivering super-deep 3D backdrops, for instance), are a clear draw.

Both games are difficult with a capital 'D', and will serve as harsh wake-up calls to those weaned on quick-saves. *R-Type* still knocks both into a cocked hat, of course, but there's a hardcore dynamic at work here that retains no small amount of charm.

Edge rating: Six out of ten





Gradius III (top) essentially runs under emulation, which guarantees arcade perfection (although the original's notorious slowdown can be eliminated)



Gradius IV is, by a country mile, the better-looking title of the pair, using scenery distortion effects which still manage to impress despite the game's inherent 2D nature. Bosses (left) can prove especially tough

ESPN International Track & Field

Format: **PlayStation2** Publisher: **Konami** Developer: **In-house** Price: **£45** Release: **November 24**

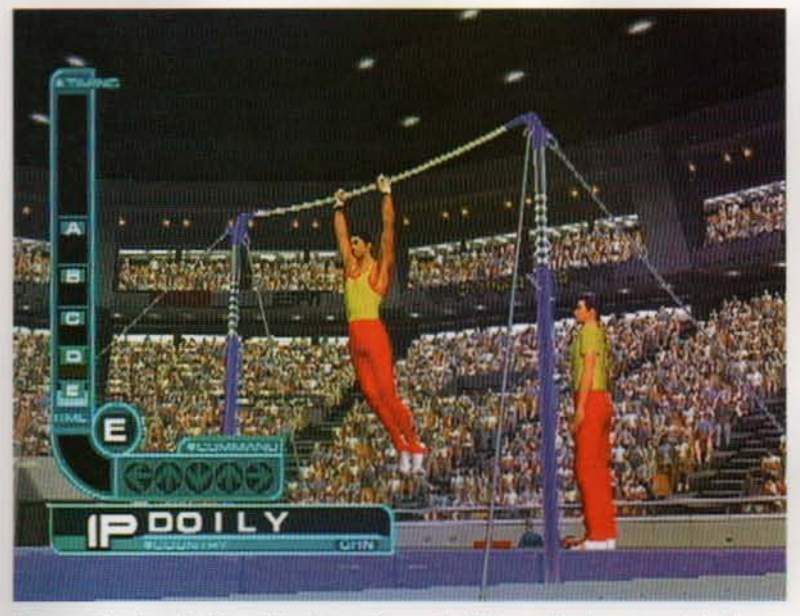
The first 128bit version of Konami's franchise and the third Olympics-based game of the year, *ESPN International Track & Field* will be one of few sports titles available at launch for PS2. Despite offering mostly the same events as previous versions, the developer has tried to think up new ways to control the action. In practise, this has meant a move away from the frenetic, button-bashing extravaganza of past track-and-field games, emphasising a more technical approach.

As such, most of the events lack the exhilarating pace of either the Saturn's *Decathlete* or *IT&F* on PlayStation, for instance. Still, a few of the activities (weightlifting) have benefited from the control tweaking, and the *Dance Dance Revolution* input for the rhythmic gymnastics has been expertly executed.

Thought has clearly gone into the presentation which, while good, doesn't capture the atmosphere as convincingly as Sega's *Virtua Athlete 2K*, and the 'three-day' structure fails to match ATD's *Sydney 2000*.

The multiplayer mode masks the sanitised, flat nature of the action, but despite being four years older and lacking 96bits underneath it, PlayStation *IT&F* is still significantly more engaging.

Edge rating: Six out of ten



The presentation is particularly well thought out – the way the lettering on the title screens mimics the actual event being announced is a nice touch, but it fails to match some of its more recent competitors





Trap shooting (top) and rhythmic gymnastics (two of the new events), are some of the most playable, particularly the latter, with its *DD Revolution* controls

Silpheed: The Lost Planet

Format: **PlayStation2** Publisher: **Capcom** Developer: **Game Arts** Price: **£45** Release: **November 24**



Silpheed usually runs fine during encounters with the bigger boss enemies. It's when the level fills up with smaller fighters and hundreds of spherical orange bullets that the slowdown starts to seriously affect play





Your fighter fires two different weapons at once, which are chosen in between levels. A higher score means more weaponry becomes available for selection

The 2D shooter is an ageing and limited genre, but in theory, there's nothing wrong with developers continuing to push at its boundaries. That said, titles that fail to satisfy the hardcore shoot 'em up addict's criteria – a variety of enemies, a smooth flow of action, and a sufficient challenge – are doomed to failure.

Silpheed: The Lost Planet, the sequel to the passable Mega CD FMV-based shooter, succeeds only on the first point. Built from intricate textured polygons, enemies attack in waves and utilise numerous attack patterns. Some are microscopic, while others take up much of the screen and require the player to concentrate their weaponry on one particular spot. Unfortunately, it's all over far too quickly in Normal mode. The Hard mode provides more of a challenge, but play it and you'll soon experience the slowdown.

This is a shame, because at times the 3D world is used to its strengths, twisting and spinning around you. *Silpheed: The Lost Planet* provides short bursts of action. It's almost exciting, it almost sucks you in, but in the end it's undone by its own vanity. Twitch gaming is all about non-stop action, and ruining that crucial flow for some irrelevant polygon beauty is folly.

Edge rating: Three out of ten

Ridge Racer V (PAL)

Format: PlayStation2 Publisher: SCEE Developer: Namco Price: £45 Release: November 24





Just when you thought poor PAL updates had been largely left stuck in 16bit land, along comes *RRV* to inform you such things are still possible in the 128bit age



As with the original Japanese version, there's some fun to be had with this, but the speed has been tinkered with and the entire package feels slightly unbalanced as a result. It also still lacks excitement

Driving titles have benefited from a nitro boost in quality terms of late, something that has resulted in developers delivering above-average experiences and looking at ways of implementing novel twists on one of the oldest formulae in videogaming.

Not so Namco, it seems. **Edge** criticised *Ridge Racer V* in issue 84 for its unwillingness to take the series forward (in much the same way as *Tekken Tag Tournament* fails to freshen up the mix), and the PAL version is no different. In fact, it's worse. Featuring some of the worst letterboxing to have shamed screens since the 16bit era (unless you're the unfortunate owner of a PAL *WaveRace 64* cart), *Ridge Racer V* at least attempts to match the speed of its NTSC predecessor. Yet this is taken a little too far, and the resulting game, although marginally faster than its Japanese counterpart, feels oddly unbalanced: expect to be leading most of the early races before the first lap has even been completed, for instance. Other than that, the structure is identical, the graphics appear unchanged, and while there's nothing particularly awful about this latest incarnation – it's reasonably good fun – it still leaves you feeling surprisingly dissatisfied.

Edge rating: Five out of ten

Tekken Tag Tournament (PAL)

Format: PlayStation2 Publisher: SCEE Developer: Namco Price: £45 Release: November 24

Nearly nine months after its Japanese release (see **E**84), *Tekken*'s 39 Iron Fist Tournament contestants return for a 128bit PAL outing. Loading up the game, little appears to have altered – same impressive opening FMV, same clear menu screen offering extensive options, and same fighter selection screen – but the developer has been busy elsewhere, implementing full-scene anti-aliasing. Also pleasing is the attempt to fill a PAL screen (although there is minimal letterboxing). Far less exciting, however, is the failure to make the action proceed at the speed of the NTSC original.

This has always been a problem of PAL *Tekkens*, and while Euro-only gamers may wonder what all the fuss is about, anyone who has experienced the Japanese version will find this incarnation unbearably sluggish. Other than that, this is the same game, right down to the curiously addictive *Tekken Bowl*.

True, this is still *Tekken 3* with a graphical makeover – only this time it's that little bit smoother. While *Tekken* virgins will love it, experienced beat 'em up hands may be left wondering when the PS2 128bit revolution will ever hit these shores.

Edge rating: Six out of ten





Although available at launch, it may be wise to avoid *TTT* and instead wait for the release of the more rewarding *Dead or Alive 2*, which should appear a little later



The full-scene anti-aliasing does make an immediately noticeable difference, and on some of the snowy rounds more flakes appear to be falling. The most obvious other change is the game's slower pace

Unbelievable Unreal

While Epic improves its FPS engine, Rage is driving European sales

Rage's *Unreal* specialist, Si Donbavand

EPIC GAMES Rage







The new height-mapped terrain engine allows the creation of enormous and beautiful vistas. A major revision of *Unreal*'s level editor has resulted in a more powerful and stable set of tools

URL
http://unreal.epicgames.com/UnrealFeatures.htm
www.unrealtournament.com
www.rage.co.uk
www.epicgames.com
or contact:
unrealtechnology@rage.co.uk

Like all the best deals, Rage's new-found position as the official European licence holder of Epic's *Unreal* engine came from synchronicity rather than planning. "We approached Epic to license the *Unreal* technology because we wanted to use it in our own titles," explains **Si Donbavand**, the man now in the enviable position of selling one of the strongest brands in gaming technology. "Somewhere within those discussions it came about that Epic was in a position to offer European licensing. It wants to concentrate on making game engines and technology, not getting bogged down with support issues."

The end result was that Rage licensed the engine for two of its own titles, which have yet to be announced, and picked up a lucrative deal to bring *Unreal* to European developers. This will involve selling the engine in Europe and dealing with all the support issues that arise. Demonstrating the lackadaisical approach of developers when it comes to supporting the external use of proprietary tools, Rage's first job has been to write a fully documented manual.

"There's been a hell of a lot of interest in *Unreal*," explains Donbavand. "Before ECTS a lot of people were interested in the LithTech engine and the other technologies such as *RenderWare*, but at ECTS, I was blown away by some of the new stuff."

The main reason for the improvements in the codebase have come from Epic's push to port the engine over to PlayStation2 for the console debut of *Unreal Tournament*. "On the PC you can have as much virtual memory as you want to mess around with, but for the PS2 version, Epic's had to go back and be more careful in the way it codes," Donbavand explains. "The result of tightening up the code was that it could add a lot more features and game performance."



Thanks to code tightening and T&L support, models should break the 5,000 polygon barrier

Combined with improvements to the code's Direct3D performance this means that level designers now have four times as many polygons at their disposal. The character models have received a marked upgrade, too, thanks to the introduction of a skeletal animation system with improved motion-capture input tools. The animation system itself is processed through the hardware T&L pipeline of PC graphics cards – the first time Epic has supported the feature.

The company also recently signed a deal with NVidia to ensure its games have improved performance on the X-Box graphics chip vendor's hardware. While this seems certain to make future *Unreal*-based games extremely top-end, Epic does have plans to try and support hardware T&L in software. This apart, the end products are stunning.

"In *Unreal Tournament*, the characters had around 800 polygons, while in the PlayStation2 version they have 1,200 polygons, and in the latest PC version they have 3,700," boasts Donbavand. Each character's skeleton consists of up to 200 bones, which are weighted to react to movement in different ways. Even more impressive is the facial animation system, which





gives all characters articulated eyeballs, moveable eyebrows, and lip-synching capabilities. Epic says that as well as using 5,000 polygons per character model in its next game, it will also be using facial motion-capture to drive the emotional level of the game. "Imagine if *Deus Ex* used this technology," enthuses Donbavand.

The other major upgrade is the large-scale terrain engine. *Unreal* has always been able to handle large external environments, but the demo of its new height-mapped system produces scenes of around 170,000 polygons, based on a single 64K, 256x256 tile. In the finished code, it will be possible to combine several of these tiles to create truly enormous playing areas. The engine also supports up to six alpha passes to create detailed layer effects such as rock, lichen, and dirt, and features plenty of polygonal trees for effect. Another aspect is that the terrain will be deformable in realtime by weapons, giving games a more realistic feel. With Epic promising further improvements to the engine by the end of the year, Donbavand's job is about to get even easier.

UnrealEd 2.0

Although not part of *Unreal* engine licence, Epic completed *UnrealEd 2.0* earlier this year. The package represents a major upgrade of the game's level editor. "The big thing about *UnrealEd 1.0* was that you always had to save your work," explains Donbavand. "But now Epic has rewritten the editor in C, so it's a lot more powerful and stable. From a presentation point of view, it looks like a professional content-creating package."

Using *UnrealEd 2.0*, level designers, both pro and amateur, can create maps and modify textures without using any other tools, such as *3D Studio Max* or *PhotoShop*. Because of the zoning the engine uses to optimise its content, it's very quick at compiling designs, especially compared to its arch-rival *QERadiant*, the Quake level editor. This means that designers can sketch out a design and quick check what it looks like ingame, before going back into the editor to tweak.

UnrealEd 2.0 is available in patches from 420 onwards at www.unrealtournament.com

Unlocking the Cipher

Crossplatform flexibility is key for Synaptic soup's new game engine

Technical director Rik Heywood (right) and development director Vince Farquharson

Synaptic Soup





While breaking out of an established developer and starting up your own project is an ambitious step in itself, Synaptic Soup has gone one stride further. Not only are the three ex-leads of Computer Artworks' squad-based action title *Evolva* planning an original game within an 18-month cycle, they are already releasing the underlying engine technology, entitled *Cipher*, to thirdparty developers.

"We're pitching *Cipher* as a complete solution for making games in the same way that the *Unreal* engine or the *Quake* engine are a complete solution," explains technical director **Rik Heywood**. "*Cipher* deals with the graphics systems, Internet networking, sound – even fiddly things like file access and compression." But unlike those previously mentioned behemoths of engine licensing, *Cipher* is what Synaptic Soup is calling a 'genre-less' engine. It will, of course, handle firstperson shooters too.

Crucially in these days of platform transition, *Cipher* is highly portable. It's currently running on OpenGL for PC, Mac and Linux, with a DirectX8 version to follow shortly, and the full range of next-generation consoles in 2001. "All its elements have been carefully separated out and designed so the smallest amount of code possible is actually dependent on the host machine," emphasises Heywood. "Our philosophy has been keeping it simple. There's not a lot of physical code in the [PC] demo we have running at the moment. The actual core engine is only 140K."

This simplicity even covers the licensing aspects of the engine – a single one-off payment per title across all supported platforms. That payment is also considerably lower than that required by the more established engines. "It's great for people developing games now, because they don't have to worry what platform to develop for," says **Vince Farquharson**, development director. "Instead they can defer that decision until the product launch. You just develop using *Cipher* and it will work on any supported platform."



The prototype version of Cipher, show here running on a PC with hardware T&L-equipped graphics card, demos its support of high resolution textures and large-scale environments





Synaptic Soup wants Cipher to rank alongside the Quake and *Unreal* engines as a complete solution for developing games

Another vital issue in game design that *Cipher* is optimised to deal with is online gaming. "The engine supports networking at a very fundamental level," says Heywood. "All the game code runs on the server and then there's a client-side version that runs on the local machine, which deals with the drawing and other facilities. Those two systems are kept separate and the engine deals with the communication between them and does the client-side predication to reduce lag. There's also the backend aspects of running a successful Internet game, so there are authentication servers, which help protect against piracy, and master servers for finding games quickly."

Cipher's crossplatform credentials make it an attractive proposition for the MOD community as well – an increasingly important factor in a game's long-term success. The engine contains an internal virtual machine rather like a *Java* system, Heywood explains, that creates a sandboxed environment that stops the game code doing anything malicious to its host but will run across platforms. "The advantage of this is if you've made a MOD, you just build this virtual machine binary that you put on the Web and that will run on all platforms, with just the one file," he says.

And despite *Cipher* only being five months old, Synaptic Soup is confident about releasing its fledgling. "We have complete faith in the technology," Farquharson stresses. "We are encouraging people to take it and test it to destruction. For us that's the best way to do it and so far the feedback has been excellent." The first batch of beta code will be shipped to a limited set of developers by the end of the year, with a full release next spring. "We've got some good technology which we are going to be selling on to others but we're not doing games to show off the engine," Farquharson explains. "We are a games company." Synaptic Soup will announce details of its debut title in a few months.

URL
www.synapticsoup.com

Taking games native

At first glance, optimising a game engine for quick localisation may not seem to be high on anyone's list of priorities, but try telling that to a publisher with a game that needs to be released in ten different language regions.

"The text in *Cipher* is stored as Unicode," Heywood explains. This means that to localise a game, all a developer needs is to get the game text translated and choose an appropriate *Windows*-supported font to display it. "It isn't a headline issue, but at the end of the day you can get a lot more sales if you have an engine that makes it trivial for you to release, say, a Japanese version of your game, especially if it's a simultaneous release," says Heywood.

This is SynthCore

Physically modelled audio may not appear sexy, but it can be damn good

STACCATO



URL
www.staccatosys.com

Traditionally viewed as an unimportant second cousin twice removed when compared to graphics, audio is increasingly being accepted as a crucial part of game development. With 3D sound now relatively common, the next barrier to be overcome is the physical synthesis of sound effects. Similar in many ways to realtime 3D graphics, the physical modelling of sound is created from combining complex algorithms, which themselves are generated directly from the physical properties that make up a sound.

For example, instead of a sound designer creating numerous discrete effects for a car depending on the amount of damage it sustains, with physical modelling they would result naturally from combining the damage algorithms of, for example, a punctured left front tyre with that produced by the rear bumper hanging off and dragging along the Tarmac at high speeds.

Tricky stuff, you might think, but one company, Staccato Systems, has been working on the problem for years. "The main advantages of this approach are realism and realtime control," explains vice president of marketing **Denis Labrecque**. "As the sounds are based on how the real object creates its sound, we can provide controls that respond as if it were real."

Originating from high academia (Stanford University's Centre for Computer Research in Music and Acoustics), the company was founded on the basis of 400 patents from Stanford combined with others that originate from Yamaha. It has focused its attention on the videogame market, however, and recently released its second-generation audio software development kit, *SynthCore 2*.

Currently available on the PC, *SynthCore 2* is a software-only audio rendering engine that relies on Staccato's proprietary Downloadable Algorithms (DLAs) to create realtime sound effects. Akin to the DownLoadable Sounds (DLSs) used in wavetable synthesis, but as small as MIDI files, a set of DLA libraries is shipped with the SDK, which developers can tweak to create their own custom effects. The library covers everything from car models to jets, submarines, and environmental effects such as explosions, wind, breaking glass, and water ambience. If a developer required specific sounds, these can also be provided.

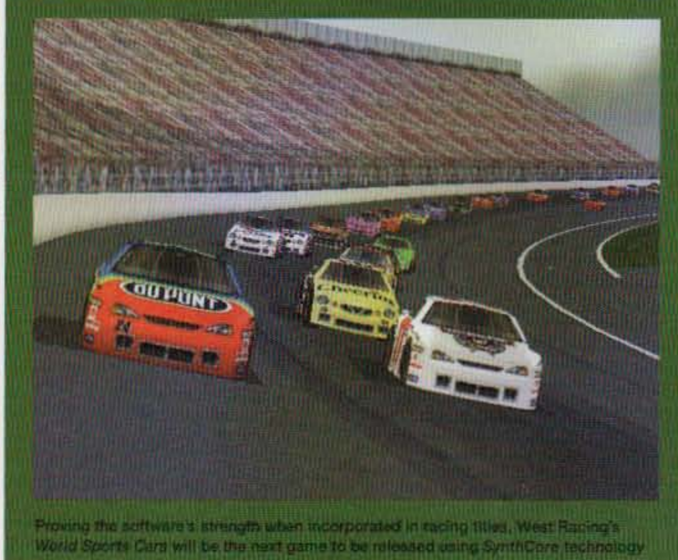
"EA's *NASCAR 2000* was a custom modification of our basic engine algorithm," says Labrecque. "We have since improved it to the point where the cars in West Racing's *World Sports Cars* title are currently being voiced entirely within the AutoShop algorithm provided with the *SynthCore* SDK2," he continues.



The mission control editor enables sound designers to combine as many as 16 DLAs simultaneously

As its name suggest, the AutoShop is a specialist synthesiser for creating car engine effects by combining DLAs with DSL or MIDI samples. This added flexibility is one of the key aspects of *SynthCore 2*. The addition of a more general event modeller also enables sound designers to combine all manner of samples with physically modelled sounds to achieve dynamic results.

Although the first two titles to use *SynthCore* have both been racing games, Labrecque is keen to stress that the technology is applicable throughout genres. Several major announcements are expected at next year's GDC, and they will not all be racing games. "We are not able to announce the other major publishers we are working with due to non-disclosure agreements," he says. With the SDK costing $495 (£340), with per-title licensing negotiable for what Labrecque calls 'favourable terms', it seems that, despite the complexity, it's about time developers got their ears around the new possibilities of audio.



Proving the software's strength when incorporated in racing titles, West Racing's *World Sports Cars* will be the next game to be released using *SynthCore* technology

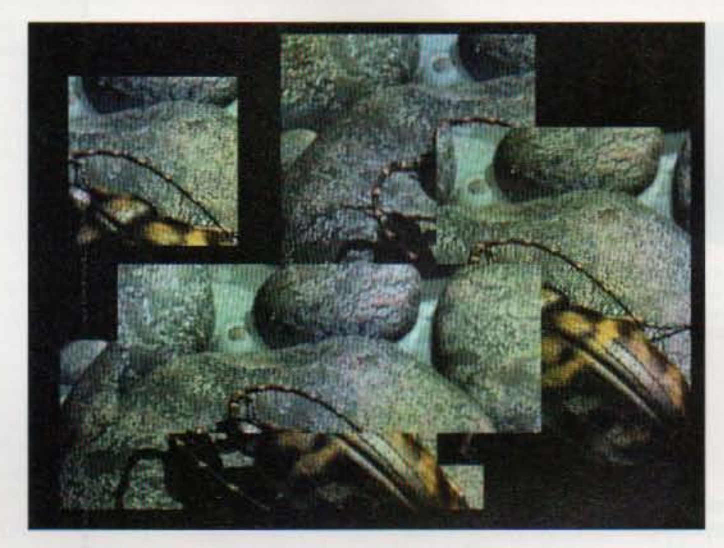
Reliving the Blitz

PC version of *Blitz BASIC* heralds a return to bedroom coding

Guildhall Leisure project manager George Bray

Back in the halcyon days when the Amiga was the most powerful gaming machine available, every self-respecting home coder had a copy of *Blitz*, a BASIC compiler designed for constructing games. It even started the phenomenon of *Worms* – a game still proving the timeless value of good design with global sales of five million units. Sadly, with the evolution of the Wintel PC platform, the Amiga went the way of all silicon. *Blitz BASIC* is on the way back, however, with the release of a DirectX-supporting PC version, which its creators reckon is the fastest PC BASIC ever.

"We researched the PC market because we felt that a lot of the ex-*Blitz* users now had PCs," explains project manager **George Bray**. "When we probed further, we found an untapped market – no one was addressing the 'back bedroom programming' fraternity properly." The first fruits are now available with a limited functionality demo on the Web, which has been downloaded 5,000 times. *Blitz BASIC Lite*, the full release of the 2D package, which comes complete with a manual, libraries of characters, backgrounds and sounds, documented source code, and demos, is also available.



Proving its multitasking capabilities, you can run *Blitz BASIC* in five windows simultaneously. Package publisher Guildhall Leisure intends to launch a series of games crafted with the code

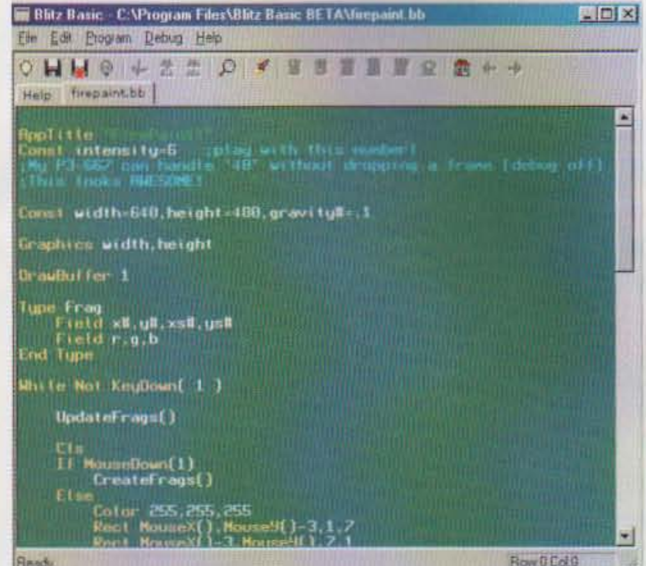
Work began on the project 15 months ago, with coding duties headed up by *Blitz BASIC* veteran Mark Sibly, whose development diary is well worth reading. One of the major issues was the use of Microsoft's DirectX API. While a headache in some ways, the use of its DirectPlay networking code does mean the *Blitz* can be used to make online multiplayer games. Sibly was less charitable about its 2D graphics-handling capabilities, though. Another controversial issue proved to be the mooted removal of the GOTO/GOSUB commands.

Only strong feedback from *Blitz*'s ever-vigilant community ensured the inclusion of the infamous scripts. "They were tricky to implement, and we are finding that not many people use them in their code either," says Bray. He qualifies the statement, adding: "But they're there and I'm happy with that."

The use of DirectX means that *Blitz* games can make full use of a PC's graphics and sound hardware, too. While the former may not seem to be useful for 2D-only titles, work is currently well underway for the next *Blitz BASIC* iteration – one that incorporates 3D graphics and allows use of libraries of higher-level languages such as C/C++. Called *Blitz BASIC Professional*, it's slated for a February 2001 release. Which isn't to say that *Blitz* is leaving its 2D roots behind, however. "3D wasn't the priority," explains Bray. "The priority was to create a tool that everyone can use to program their own videogames with ease. The ultimate goal was a 3D engine. However, some of the best games ever were created in 2D."

To back up the statement, *Blitz*'s publisher, Guildhall Leisure, is preparing to release the Blitz Gaming range. "The plan is to launch a range of games written by *Blitz BASIC* users," Bray explains. "A programmer may not know how to get his product sold, and this is where we would like to step in. All the creators have to do is send either a demo or a finished game to us." Bedroom coders, consider that a challenge.





Blitz's integrated development environment makes coding as straightforward as possible. Multiple viewpoints can be handled within the code

URL

w.blitzbasic.com
w.guildhallleisure.com

Think small for big bucks

Unlock novel online revenue streams with the Jalda micropayment system

Daydream Software CEO Jan Phersson-Broberg



jalda:: daydream



The first game to be designed exclusively for use with the Jalda micropayment system is Daydream's futuristic airborne racer *Clusterball*

URL
www.jalda.com
www.clusterball.com
www.daydream.se

One of the most tricky Web quandaries is the issue of micropayments. Credit/debit cards are commonly used for goods over £10, but what's really needed is a universal system for large and small amounts.

One of the proposed systems for solving this problem is Jalda. Developed jointly by Ericsson and Hewlett Packard, the account-based payment system is based on the secure RSA public key infrastructure and can be accessed by static and mobile devices. Dealing with payments that range from hundreds of dollars to fractions of cents, it is designed to provide the flexibility for content providers to charge users in many different ways, ranging from single mouseclicks to number of sessions played or amount of ammo used. All the content providers have to do is download the Jalda API and integrate it within their content.

"The games community represents a very important segment for Jalda," says **Patrik Centellini**, marketing manager of Jalda's Internet payment systems. "Jalda can be seen as a development tool providing a flexible way of structuring different modes of payment for different modes of play."

One of the first games to implement the system is *Clusterball*, an online racing game from Swedish developer Daydream. Begun three years ago, *Clusterball* was designed from the outset to be a narrowband, downloadable, online game that would generate a revenue stream.

"By coincidence we joined Ericsson in a project that ended with what we know today as Jalda," explains Daydream's CEO **Jan Phersson-Broberg**. "But you must carefully match different business models," he cautions. "We use traditional boxes in stores with all online prepaid, credit cards with free download where the player just buys access to unlimited use of venues, and where you just pay for what you are using.

Initially Daydream plans to use Jalda to levy a per-match charge, although it is implementing a data collection system called Youmerang, which will provide information of how players react to the charging models and what revenues could be generated by switching to different models.

Phersson-Broberg stresses that developers should be considering these issues now: "I think that publishers and developers need to start thinking about new ways of getting revenue."

Jalda's Centellini agrees: "Up until now the content on the Net has been quite limited in sophistication but in the coming years we will see an explosion in new applications, more advanced games, films and music. This is what people will pay for – good quality content."

Diary of a videogame

Brain in a Jar rues the day it put all its eggs in one basket

Brain In A Jar diary, part two
by managing director Matthew Gabriel







For those of you that read **Edge**'s sister magazine *GamesMaster*, you may have seen the preview of our *Ferrari 360 Challenge* game. To quote their summary: 'The world's most desirable car on the world's most powerful (at the moment) console. What could go wrong?' Well, funny you should ask...

Having spent a year and a half getting the Ferrari deal, three and a half months later it's all over. Most people in the industry are probably aware of the news surrounding Ferrari and Acclaim, but for those of you in the dark, Acclaim decided to suspend future development of all titles under the Ferrari licence. This included our current game and the other projects we had on the drawing board. So it's back to square one.

We had big plans for *Ferrari*, and our future depended on related titles. It's not usually a good thing to put all your eggs in one basket, but that was just another risk we took to get the Ferrari deal. We have parted company with Acclaim on reasonably good terms, but I won't lie and say everything has been amicable. Under the circumstances you wouldn't expect it to be, and I know you wouldn't believe me if I told you otherwise. I pointed out in the previous diary how annoying it was to spend so much of your contract negotiation time over the small clauses that only come into effect if everything goes pear-shaped. Now that we have the shape of a pear, at least temporarily, I am glad we put in the effort to get these details right at the time.

In the last month we have spoken to a lot of developers and publishers. Luckily, ECTS was just around the corner when the news reached us, and we quickly arranged lots of meetings. Instead of a relaxing show spent looking at new products and ideas, I spent the entire time going from one meeting to the next. Most of these went very well, and it looks as though publishers are on the lookout for good developers again. However, with the increasing investment of time and money needed to develop on the new platforms a lot of 'due diligence' is required before any deal will get done. With the bank account fast heading south, we had to quickly find a solution that would buy us more time and room to manoeuvre.

'Having spent a year and a half getting the deal, three and a half months later it's all over. Luckily, ECTS was just around the corner when we found out'



As reported in **E**90, publisher Acclaim has cancelled all its Ferrari-related titles, resulting in some 160 job losses across the industry. Brain in a Jar was one of the developers hit

We had started talking with Warthog at ECTS, and after throwing lots of potential deals at each other, we arrived at an arrangement that would help both of us. There is no point in accepting something that you will only regret later, and our relationship with Warthog will give us about two months' breathing space. During this time we need to secure a new, longterm deal with a publisher or developer. I'd like to thank Ashley Hall at Warthog for his help through this period, and particularly for not trying to take advantage of a company that's going through a low point.

So, what is happening with the Ferrari licence at the moment? Things are happening, but as far as I know nothing is official, so until next time I'd better keep quiet. We don't actually know if it has been signed to another publisher yet, but we have a good idea of who's in the running. And yes, we have meetings set up with them. What chance do we have of getting the deal again? I don't know, but we are in contact with Ferrari, which we hope will help us. Ferrari has always been enthusiastic with our ideas and what we have developed so far. There are no guarantees, but having got this far, and having a growing relationship with Ferrari, we would be foolish to give up the wealth of ideas we have for the licence.

One of the annoying things is that development of the game was going very well and according to plan. The team had settled in well to the temporary office, and plans for the new offices at Oulton Park (right next to the race circuit) were going well. By April next year we should have moved in and added a second team. Hopefully we will be able to continue with our new offices, but this will depend on the next deal we do. PlayStation2 development has also been going well, and often better than planned. The engine is up and running and optimisation has begun. Until it's finished I won't say that it's been straightforward, because there's still a lot of hard things to do, but our confidence with the platform is high, and we have experienced few of the problems reported by other developers working on the platform.

By the time of our next instalment of this diary, one of three things will have happened: we will have located and successfully signed up a Ferrari development deal; we will have signed up for a different product; or we will be another casualty of the games industry. Realistically, I think we've got enough quality people here to keep the company going, but there's no doubt it's going to be tough. Whatever happens we will continue to put everything in to it as usual. Wish us luck. I actually think we're due some.

The Codeshop diary now focuses on two projects from two developers. Brain In A Jar's next instalment will be in **E**93

The making of... Exile

Jeremy C Smith and Peter Irvin managed to code a game on the RAM-strapped BBC that devotees have yet to complete some 15 years later. **Edge** uncovers how the pair developed the title that first introduced realistic physics to gaming

Escapism. There's this guy in a spacesuit on a distant moon, and he's being thrown around by a wind raging inside a cavern. When his feet catch the ground he tumbles head over heels, slamming into the wall with a muffled yell. He fires a bullet into the hurricane, watches it stall, curve, return and smash into his stomach. The impact throws him back against the wall and he screams again. A bird, nesting nearby, carves almost effortlessly through the wind then swoops back out. He chases the bird, firing, stumbling, spinning. Why? No particular reason, really, just because he can. Freedom of choice is the future, so let's escape.

You're Mike Finn, weary space hero. A research ship, the Pericles, sits stranded

on the surface of planet Phoebus. Its crew is missing, their fate picked out in brief, terrifying radio bulletins from their captain. Triax, an arch-geneticist exiled from Earth for crimes against humanity, is responsible. You're underfunded and underequipped, and your mission? To rescue any survivors and to overpower Triax. Except now, Triax has stolen a crucial part of your ship, and you're stranded too. So it begins.

"*Exile* was just going to be a man with a jetpack exploring a 2D cave system populated with objects, animals and puzzles. There was no plot, and no real development plan"

Schoolfriends Jeremy C Smith and **Peter Irvin** finished university in 1986. Smith was at Imperial College and Irvin at Cambridge, and each had found their courses sufficiently uninspiring to exclude the idea of following the traditional route into a 'normal' industry. Luckily, both were accomplished bedroom coders – Smith was the author of *Thrust*, the classic inertia-based blend of skill and planetary destruction, and Irvin had created the well-received monochrome eight-way shoot 'em 'up *Starship Command*. They decided to work on a project together. "At the time I was writing a game which had a wizard exploring a cavern filled with water and monsters," Irvin says. "I shelved it when we decided to team up to do *Exile* on the BBC, though the *Exile* code was built on the Wizard engine, rewritten five times over."

Despite their coding background and obvious love of all things sci-fi, the initial direction for the project was unclear. "At inception *Exile* was just to be a man with a jetpack exploring a 2D cave system populated with objects, animals, and puzzles," continues Irvin. "There was no plot, and no real development plan. We just set about making incremental changes, adding new technologies, and seeing where it led us. It was very much development by evolution."

As happens with evolution, *Exile*'s development took place at the very limits of what was possible, right from the very start. "Just compiling the game was right on the edge of being possible all the time because of the lack of RAM," Irvin recalls. "The source code was broken into lots of modules, each loaded from floppy and compiled in sequence. As time went on, these had to broken down into smaller and smaller files just to fit in RAM with the object code."

Without the luxury of a network or version-control software, Smith and Irvin resorted to other methods of working in parallel. "We wrote down on paper the routines we'd changed, and occasionally merged the two sets of game code. We'd written various utilities to help, for example to compare the modules for differences, but the whole process was a bit of a nightmare to merge." Arduous, yes, but out of the toil emerged a planet: Phoebos. The landscape was generated by a fast map function which took each x-y co-ordinate and created tunnels, solid rock, or a special block with a manually defined object in it. Objects could be doors, guns, items, or, so important to *Exile*'s vibrant planetscape, the natural inhabitants of Phoebos.

Populating the caves with myriad lifeforms, each exhibiting strikingly different behaviour patterns, seemed like an impossible task. Irvin explains



The red piranhas are aggressive, and killing them will help the player progress. Finn can fire his weapon at any angle, useful in fights and puzzles

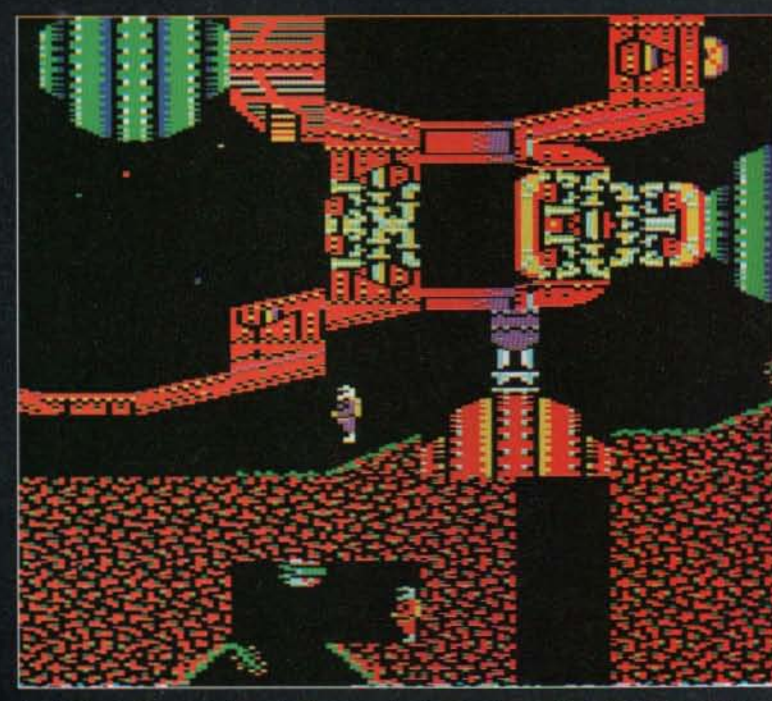


The Urn, found early on in the game, can be filled with water and used to extinguish fires. Knock into a wall or accelerate too quickly while you're carrying it and the water spills out

how it was achieved. "Each creature chooses a target as its main focus of attention to follow or shoot at. It does so based on a list of criteria. Does its target belong to a certain group? Maybe it's a type of animal, an evil robot, a friendly imp, or whatever. What 'mood' – damaged, hungry, or whatever – is the testing object in? Is it in its line of sight? How far away is it? And so on, and so on. This single routine instantly gave us wasps behaving in realistic swarms, animals that attack then give up

The fact it was impossible to die meant the player was free to experiment with dangerous solutions to puzzles. It was a massive, deadly world, and an exceptionally difficult game

when you back off, turrets that exhibit intelligent attack patterns. All it required was a few bytes of data for each object, and then the same piece of code for everything." Simple, except for a few small problems with the mischievous imps. Irvin remembers: "There was a bug where they'd clamber out of their nests, up the walls, and swipe the gun



The first structure Finn encounters on Phoebos is the abandoned exploration ship, the Pericles. In order to get into the caverns below, he must destroy a locked door with a bomb, found concealed in a nearby bush



Exile's single level structure meant for an utterly non-linear experience. If the player became stuck in one part of the planet, exploration of another would provide a change of scenery and direction

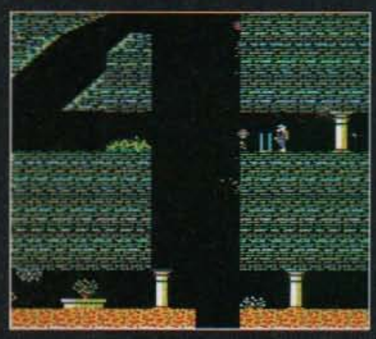
turrets off the roof, or try and make off with the huge robots."

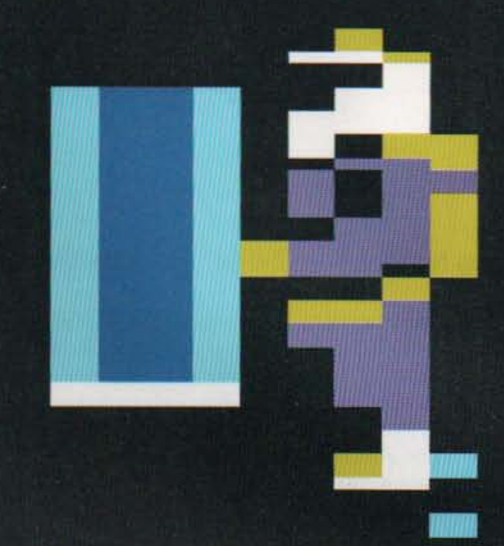
Enemies or more subtle object-based puzzles would block progress through the intricate cavern system and towards Triax's lair. Stealth and skilful flying could outwit the killers; equally effective would be a volley of fire from one of the five particle-based weapons strewn around the game world. Puzzles required a little more subtlety, but solving them remained a world away from the esoteric try-everything-with-everything-else methods seen elsewhere. Because the rules of *Exile* were grounded in real life, in gravity and mass and inertia, so were the answers to its questions. It's easiest to give an example: holding a heavy rock provided you with enough weight to counterbalance a strong updraft, and finding a jetpack booster gave you the added thrust needed to move downwards through it.

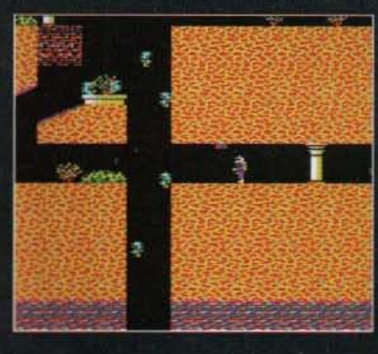
Equally crucially, the fact that it was impossible to die – if you were badly injured then your protection suit would automatically teleport you away to one of four self-set locations – meant the player was free to experiment with dangerous solutions to puzzles as much as they liked. It was a massive, deadly world, and an exceptionally difficult game.

"Some of the really obsessive fans haven't even finished the game – I doubt there are many people who've even got as far as causing the earthquake that floods the caves, or finding the maggot machine or the surviving colonists," says Irvin. "In retrospect, I guess we should have made it much smaller so that more people finished it, then made a sequel."

Naturally, the game's success led to conversions for more powerful formats. The Amiga and ST versions benefited from a massive increase in available RAM, resulting in better graphics and walls that were no longer restricted to 45° angles, but when it







came to saving on the CD32, memory became a problem again. "The saved game had to fit into a pitifully small amount of non-volatile RAM. Each byte that had to be saved had unused parts of the bitfield stripped, then was subtracted from its most likely value. Then, after several other compressions, it was finally stored." A generational leap in hardware meant nothing – the host machine was still being pushed to the limit.

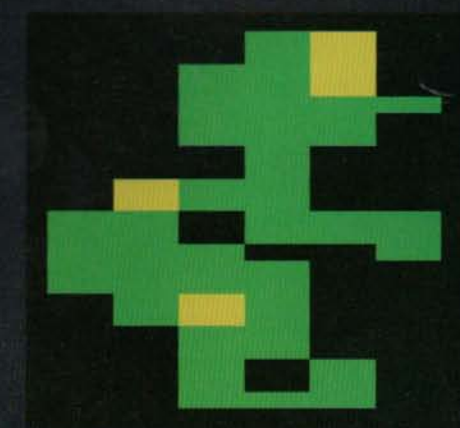
Might it be possible to test tomorrow's next-generation hardware with a new *Exile*? "Quite a few people ask about a sequel or updated version: after all, the hero, Mike Finn, has only had one adventure so far, and Triax lives on. I'd quite like this to happen, but only if it was better than the original, which means really concentrating on having the same immersive atmosphere and gameplay." That's not the only reason why Irvin has hung back from recreating Finn's universe. "I think it's only recently that computers have become powerful enough to do what I'd like to implement in a really detailed realistic 3D world for *Exile*. It's not just a matter of pretty bitmaps and numbers of polygons."

"People keep asking about the extra text messages in the 68000 version, like 'She wants you badly'... We put those in there for hackers to wonder over. Maybe"



Sadly, Smith passed away in 1992. Irvin still works in the games industry for his own company, Inventivity (www.inventivity.co.uk). He's remaining quiet about his current project, but reveals that it's a game designed to work on every platform from PDAs and Smart phones upwards, and that it has been allowed to evolve from basic principles, just like *Exile*. For now, then, those desperate for a sequel will have to be content with playing around with the versions of the game already available. "People keep asking about the extra text messages in the 68000 version, like 'She wants you badly', or 'You have killed Triax'. We put those there for hackers to wonder over," Irvin says. "Maybe."

The smiling secrecy is understandable. Why put any rumours to rest? In less than 150K of data, within 32K of RAM, Irvin and Smith created a world which still lives on today. It lives in the tribute Web sites, it lives through emulation, and it lives through the dedicated conversion projects. Most of all, though, it lives in the heads of those who played it. That's where Mike Finn is now, circling through the caverns of Phoebos, thrown around by the particle winds, spinning around in the sparkling black. That's *Exile*. That's freedom.

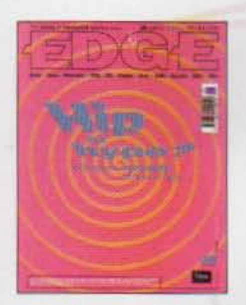


RESET

Where yesterday's gaming goes to have a lie down

reload

Examining gaming history from **Edge**'s perspective, five years ago this month



Issue 28, January 1996

'Hip or hype?' was the question posed on the cover of **E**28. Inside, the editorial intro boldly proclaimed that 'these new consoles are not toys, they are icons'.

Edge was talking about 32bit wonders in the form of the PlayStation and Saturn, of course. This was January 1996, a time when videogaming remained largely the preserve of super-committed individuals who preferred the environment of a monitor-lit bedroom than that of the super-consciously socially aware nightclubs and festivals that the Japanese giant was targeting via its UK arm. 'Yes, videogames are now cool,' went the message. Truth be told, the 'cool' part of the equation mattered most to the editors of lifestyle magazines and newspaper subsections looking to identify cultural movement. But at least **Edge** identified the sea change just as it was happening, rather than sometime later down the line, as so many other publications attempted to do.

Elsewhere **E**28 introduced four new sections, including Netview, Techview, Arcadeview, and Over The **Edge**, all of which long since deceased. Dig out your copy, though, if only to re-read the debut instalment of Netview, a twee reflection of simpler times.

DID THEY REALLY SAY THAT?

John Hackney, VP of McCann Erickson Europe, the company charged with promoting the Saturn's launch: "[There was] the feeling that Sega – more than Nintendo, which came across as very safe, very Disney – had a bit of a 'fuck you' attitude." Say no more, JH.

DID EDGE REALLY SAY THAT?

'To use [BT's] Wireplay, [you need] a PC (a 386 or above), a modem (at least 9.6K)...' Was this really just five years ago?

TESTSCREENS (AND RATINGS)

Virtua Fighter 2 (Saturn; 9/10), *Actua Soccer* (PlayStation; 7/10), *Hexen* (PC; 9/10), *Pulstar* (Neo-Geo CD; 8/10), *Hang On GP '95* (Saturn; 6/10), *Layer Section* (Saturn; 7/10), *Crusader* (PC; 8/10), *Star Fighter* (3DO; 7/10), *War Hawk* (PlayStation; 7/10)



1



2

1. Probe's Fergus McGovern talks to **Edge** following Acclaim's £60m acquisition of his company **2.** *Pulstar*, one of the Neo-Geo's most accomplished, if cynically conceived, actioners **3.** Netview's debut **4.** **Edge** takes a look into the darker side of gaming... **5.** ... and finds some particularly grisly evidence **6.** *Big Red Racing*, a PC game clearly awaiting the dawn of 3D acceleration



3



4



5



6

pixelperfect

The industry's favourites from yesteryear. This month, Team Soho's **Chun Wah Kong** relives his kung fu past spent in a dingy arcade







Working on one of the most ambitious PS2 games to date, Wah Kong remembers a classic 8bitter

Most of the money I got helping out at the family takeaway during my teens went to the local amusement arcade. It was a small arcade, housing no more than ten cabinets and a few slot machines at a time. What they managed to get right, though, was the choice of games that kept bringing me back. One of such games was *Kung Fu Master*.

At first I was actually afraid to go on it because the characters were so big on-screen and the action moved at such a pace that the player had a split second to time his moves. At the drop of a coin to the cry of 'Waiiiyaaa!', an endless number of Mr X's henchmen poured on to the screen, raising their fists as they approached the hero.

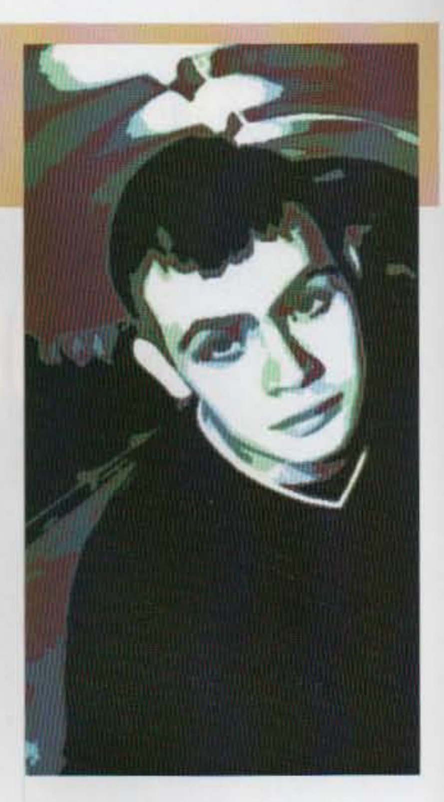
Overcoming the initial intimidation, I quickly fell in love with kung fu master Thomas's incessant agility, with his lightning feet and fists of fury. Venturing deeper into the devil's temple, unarmed henchmen were backed up by knife throwers and somersaulting midgets, who could only be disposed of with timely headbutts.

Kung Fu Master is a prime example of a simple game where it is not enough just to win, but the player is almost encouraged to win with style. Perhaps it is the ability to dispose of three baddies with a single flying kick, but there is that certain feel-good factor to *Kung Fu Master* that I'd like to see more in today's games.

FAQ

Demis Hassabis

CEO and co-founder, Elixir Studios



Despite his young years, **Demis Hassabis** has already been around the block a few times, starting out at Bullfrog before going it alone to set up Elixir Studios last year. The company's first project, *Republic: The Revolution*, is due to ship on PC next year.

What was the first computer you owned?
The good old 48K Sinclair ZX Spectrum.

What was the first thing you ever created on a computer?
The first thing I can remember creating of any consequence was a haunted house text adventure game. I remember drawing the grid-based maps for it for hours on end, and it even had an upper and lower level inside the house.

What was your first job in the industry, and what was the first thing you ever designed?
My first job in the industry was some work experience at Bullfrog where I tested the PC version of *Populous II* while also thinking about algorithms for how I would have attempted to do the computer player. The first thing I had to do design-wise was later, when I was full time at Bullfrog. I had to design some levels for the data disc add-on for the original *Syndicate*.

"Not many people are pushing the boundaries of what we know by attempting something new... it's the only way we will progress"

What's your favourite game ever, and why?
The original *Civilization*. Sid Meier once described pure gameplay as something that has you saying to yourself: "Just one more turn and then I'm off to bed" – and then suddenly it's five o'clock in the morning. Great subject matter, superb depth, two games are never the same, perfect pacing, and an unusually good computer opponent (even if it cheats) make it the best computer game ever.

What was the last game you played, and what did you think of it?
Fourplayer *Virtua Tennis*. It's good fun, but it is ironic to note it's basically fourplayer *Pong*.

How many hours a week do you actually spend playing games?
About ten, but that includes boardgames. I'd like to play more, but I just don't have time.

What's the first game you look for when you walk into an arcade?
Air hockey tables, and if I'm with a lot of friends, a big game of multiplayer *Daytona USA*.

What's your favourite movie, book and album and of all time?
'Blade Runner', because so much creativity went into it at every level. 'Lord Of The Rings', as it is probably the greatest single piece of imagination this century, maybe ever, and because it has inspired so much. Album is more tricky; it really changes with my mood. Could be a bit of Mozart one day, a bit of Radiohead another day, or the latest Logical Progression the next.

Which Web site do you most regularly visit?
www.skysports.co.uk/football. I'm a fanatical Liverpool supporter.

Which game would you most like to have worked on?
Civilisation, obviously, as it is my favourite game. Other than that, perhaps *Soul Calibur*, as I really like fighting games and the depth you can take this game to in terms of different levels of skill is unbelievable. It's practically a work of art.

Of all the games you've been involved with in the past, what's your favourite, and why?
Probably *Theme Park*, as it is the one I had the biggest input into. *Syndicate* is one of my all time favourites in terms of graphical style. To think it was done with only 16 colours...

What are you personally working on at the moment?
I'm currently working hard on refining and balancing the core gameplay mechanics of Elixir's first game, *Republic: The Revolution*, as well as thinking about the AI architecture.

What stage is the project at?
We are just coming to the end of the difficult technology development phase and moving into just full-scale production of game content.

What new development in videogames would you most like to see?
I'd love to see better and more believable artificial intelligences in games. Characters that are capable of portraying emotion and feeling, and that are able to drive the story in different ways each time you play, not just merely pre-scripted.

What annoys you about the industry?
Lack of originality and innovation. Not very many people are pushing the boundaries of what we know by attempting something new. It is a lot harder to do and a lot more risky, but it's the only way that the industry will continue to progress.

What do you most enjoy about working in the videogame industry?
Firstly, being involved in the creation of an original cutting-edge game from the programming and design front is about one of the most challenging things you can do. It challenges your technical and creative skills to the limit, and is about the only job I can think of that does that. Secondly, working as part of a close-knit, young and enthusiastic team is great fun.

Whose work do you most admire?
Hideo Kojima, for the incredible vision he brings to his games and the way he tries to do things that will advance the whole industry.

Which new platform are you most looking forward to?
Coming from a PC development background I would probably say the X-Box.

What's your take on mobile-phone gaming?
Nothing much exciting is happening at the moment, but what I'm really excited about are the possibilities in three to four years' time.

Finally, synthesis or persistence?
Persistent synthesis might evolve some intriguing things.



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J Allard speculates on a 'resurgence' in 'twitch gaming' in **E**90. There is no doubt in my mind that this resurgence is on the way. In development are *TimeSplitters* and *Return To Castle Wolfenstein*, both of which are a return to reaction gaming. These sorts of games would appeal to more casual gamers, but what would the hardcore crowd make of them? Since journalists are typically hardcore gamers, we may see average review scores and comments of lack of depth from the magazines.

If this is the case, how will casual gamers find out about these titles' existence? All the casual gamers that I know buy games based on their friends' opinions. An example of this is *GoldenEye*; I played it at a relative's house and then bought it, then my friends came over for a multiplayer session and soon everyone that owns a N64 has one. The only solution I can think of is *Casual Gamer UK* magazine, or something similar.

On another note, Graham Plumb's Phantom Limb (Out There **E**90) is intriguing, but how are the arcade owners going to stop adolescent boys (like me) slyly swearing at passers by?

Guy Chapman, via email

Edge will continue to champion the very best in twitch gaming (*IT&F* remains a perennial favourite, and yet its depth can be easily questioned), but, intriguingly, Future Publishing has a new magazine launching soon, entitled *Video Gamer*, which may well cater for the masses you refer to.

I'm a deaf hardcore gamer, have been playing great games since 1983, and have a vast collection of classic computer and videogames. I was born deaf with speech impairment. I don't use any hearing aids because they don't help me at all as my deafness is very severe. There are about four-and-a-half million people who are deaf or hard of hearing in the UK.

I am getting very concerned about the new generation of consoles, because there is a growing trend of using speech instead of text to follow the game plot. I can, however, understand and accept the growing popularity of using speech for a game's plot to allow more realism. I'm also aware of cheaper, powerful new audio technology.

What caused me most concern was an X-Box developer saying: "We are going to introduce a headphone with a microphone where you can speak and order instructions while playing games in the X-Box. We don't want a keyboard for our X-Box as we don't want our X-Box interpreted as a PC." It may be that developers don't understand the great problems this could pose people with hearing difficulties.

In **E**89, I read your Prescreen Focus about storyboarding and wondered: what about deaf gamers? We would be excluded from these game elements if they were introduced without text.

I strongly feel that game developers doesn't give a damn about the hard of hearing. This isn't a new phenomenon, as they have already demonstrated their attitude. Look at *Driver*, *Spider-Man*, *Half-Life*, *Blood Omen: Legacy Of Kain*, and the *Resident Evil* series: these games all include speech without a subtitles menu.

I wrote a letter to Reflections last year after buying *Driver* and discovering that there were no subtitles to follow the plot. I asked them to include subtitles on the PC version of *Driver* and their forthcoming games. I received a letter from John Sim, promising to send a transcript of the *Driver* missions, but I have heard nothing from them and am not very impressed. I was forced to buy an official strategy guide, but then realised it was impossible to follow due to missions leading to any one of a number of further jobs, so I had to guess what mission I would be playing. That pissed me off and wasted me a good deal of £50 worth of game and strategy guide combined.

To summarise my concerns, will games on the next generation of consoles include a subtitles menu? I very much doubt it, because of a perceived lack of demand. One solution would be to offer deaf gamers a patch including a subtitles menu. Unless the deaf and hard of hearing lobby game developers for subtitles on our next-generation console games, we stand to miss out on the advances the new wave of games offer.

Niall Rattansi, via email

Developers, this one's over to you...

I agree with Rob Cole's letter in **E**89 on the importance of controller design, and that it barely gets a mention in the pages of most videogame magazines, who only seem to be interested in the frame rates or polygon counts for the forthcoming console war. However, I feel I must reply to his comment that the N64 controller is 'perfect'.

My own preference is Sony's little gem – your hands surround its contours like a glove, although the first models look like some cheap thirdparty effort compared to a Dual Shock unit, which, to me, evolved it into perfection. I don't want to start a debate that will run for months on end, I just think that it all comes down to gamers' own preferences. I bought my PS soon after its launch, and I've needed a daily fix of it since, so I've had a few wonderful years' service from it, but it did start to look dated once *GoldenEye* hit the N64 – the game



As a deaf, committed gamer, Niall Rattansi bemoans titles such as *Spider-Man*, which fails to offer a subtitle option, and ponders his gaming future

which prompted me to buy one. The first words to pass my lips when I removed the controller from the box were: "How the fuck are you supposed to hold that?" Since the days of my ZX Spectrum, I've always used a keyboard, having a deep hatred for joysticks, so I've grown into the habit of having my hands close together, with my fingers on the pulse (so to speak), so the N64 controller went against everything I knew. Three sections for your hands? I like to have my fingers ready to save the world or give Yoshimitsu a particularly vicious kick up the arse. What I don't want to do is let go of the controller then get hold of it somewhere else just to take aim. Gameplay suffers.

On Monday May 15, 2000, a date etched in my mind, my beloved PS went to silicon heaven. So disgusted was I with Nintendo's 'controller' that I bought a Dreamcast to fill in time before PS2's launch. Sega's controller is an improvement on Nintendo's, but quality control seems to have gone out of the window, and as much as I hate the N64's controller, I have to admit that it is reliable and solid – when you press a button you do so knowing that you are not inadvertently pressing another. The same cannot be said for Sega's great white hope.

I give Sony top marks for sticking with the Dual Shock design, giving an old friend a new makeover to allow transition to the future much more playable, and instantly recognisable. It is therefore nice to see that Nintendo seems to have learned from its mistakes and has opted for a Sony clone as its physical interface for the GameCube – now all they need is a good design for the console instead of something that looks like Barbie's portable karaoke machine. Let's hope that Pikachu is on standby...

Paul Thomlinson, via email

The N64's controller is certainly an ugly beast, but in functionality terms it remains the favoured console controller in the **Edge** office. And that's from a bunch of gamers who grew up first using dials, then buttons, joysticks, keyboards, D-pads, and most recently analogue sticks.

Regarding GameCube, can you really not find a place in your home for a black or 'steel' model?

I love your inside cover images, but was disappointed with those of issue 89. The 'religious' one. The compositing is 'scary' and the rendering of the book is 'bandy'. Also, you left the crucifix in the shot and the logo for the Y2K celebration of the Catholic church. Are you saying that the Catholic church preaches your doctrine, or that priests read **Edge** during mass? A good job the Spanish Inquisition isn't around. Although this won't damage the church, this does show a lack of thinking on your part, even if the priest agreed to the result.

Perhaps other religions such as the Jews or Muslims may feel aggrieved that they weren't chosen. For such a straightforward idea, the execution was bland. This feels a bit like a failing TV show producing a ghost story episode. You're not failing or running out of ideas, are you? I hope not.

Valan Chan, via email

Surprisingly, this is the only letter **Edge** received on this topic, when a bundle was expected. Perhaps most readers' religion is simply technology. Regardless, here's hoping last month's Cerne Abbas Giant did not offend your sensibilities.

So, Paul Jackson of Electronic Arts doesn't think the delayed launch or the price point of PS2 will alienate consumers? Perhaps he should frequent the forums that I do where the pricing of PS2 in particular is a sore point.

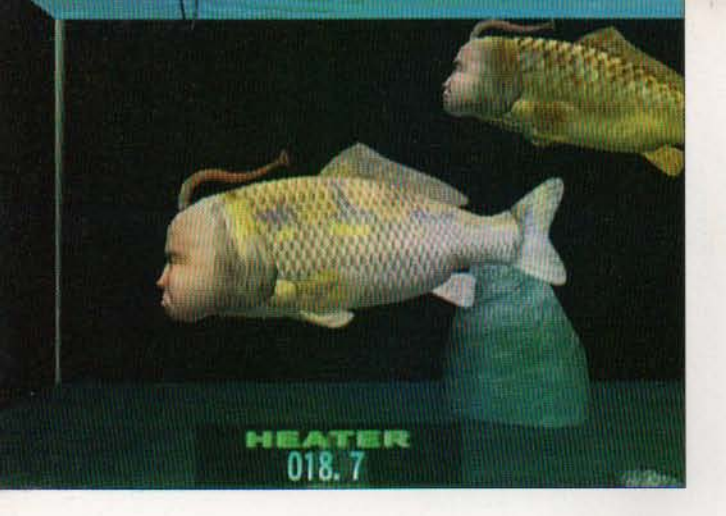
The price point in addition to the pre-order scheme has put me off getting one until at least the first price drop. In a way, I suppose I should thank Sony. The money I might have spent on PS2 can be directed towards other platforms (mainly my Dreamcast). I also have friends who are either waiting for a significant price drop before buying or just aren't bothering and are considering Dreamcast as an option. These aren't people who don't consider the PS2 a major purchase (as David Braben suggests) but people who actually held off buying a Dreamcast in favour of PS2 only to be alienated by the pricing and delays. I don't mean this to sound as a pro-Sega/anti-Sony letter, I'm just suggesting that Paul Jackson et al should be a little more aware of the fact that some people have been put off.

Stephen Marriott, via email

This still remains a difficult one to call. On the one hand Sega is rubbing its corporate hands with glee over the PS2 stock shortages situation, while on the other you have the very existence of what remains one of the most lusted-after pieces of gaming hardware ever engineered, irrespective of when people can actually get their hands on it. In summary, though, it must be said that nowadays more negative PS2 reader feedback lands in this office than positive. Interpret that as you will. Which brings us to...

I am disgusted by the amount of letters that simply bitch about the PS2. Of course it has its shortcomings – everything does. But you don't see people complaining about Dreamcast's low specs and shoddy online gaming, or about Nintendo's irrepressibly ugly GameCube, but you do (albeit to a lesser extent) hear about X-Box's naïveté. I am not

'This feels a bit like a failing TV show producing a ghost story episode. You're not failing or running out of ideas, are you? I hope not'



Nathan Baseley champions Sega's efforts in delivering software such as *Seaman* instead of relying on sequels

saying that Sega won't be able to get their online act together, or that the GameCube doesn't have some amazing games in production, or that X-Box may be able to win this console war, but has it become fashionable to complain about PS2?

So the PR managers exaggerated its potential; so did Microsoft's. But the entire point of a PR manager is to create an image that appeals to the masses, and, frankly, hardcore gamers are no longer the masses. That title now belongs to the casual gamer, who picks up any magazine with a picture of Lara Croft on the front, who buys any sport game that's a sequel, and ignores anything that's truly inspirational. But has anyone who writes these letters seen *Metal Gear Solid 2* running? Because if they had, I severely doubt that they would be complaining so much.

Shrestha Sinha, via email

There's a significant point to be made here concerning pre-launch hype. When Sony first unveiled PS2 footage, a significant proportion was not generated by final hardware. The difference in quality between Namco's prototype *Tekken Tag Tournament* and the finished article bears painful witness to this. Microsoft is in a position where it, too, is showing footage which misrepresents the power of X-Box proper – but in this instance the finished unit can only be more potent, simply because NVidia's image-processing technology is constantly evolving in the run up to launch. In a bold step, Sega, conversely, pulled back the curtains on its latest machine and delivered demos that were 'real' (the infamously pretty 'Tower Of Babel' sequence could be slapped on to a GD-ROM and you could view it at home right now). From **Edge**'s perspective it is sometimes difficult separating genuine console demos from the smoke-and-mirrors approaches so often favoured by hardware manufacturers. To these companies the best message is probably this: by all means build it up, but the higher you build, the closer critics will begin to look for structural defects.

Something strange is happening in camp Sega. Has anyone else noticed that the majority of the big titles are not sequels to old franchises? Certainly there have been arcade conversions, but I am really talking about *Virtua Fighter*, *Sega Rally*, and *Sonic* being the only big titles that are old Sega franchises.

The big titles being discussed are *Jet Set Radio*, *Shenmue*, *Space Channel 5*, *Crazy Taxi*, and the like. Not only are these new games, they are also blisteringly original and innovative.

We always tend to hold Nintendo up as the developers who know which buttons to push. Their games almost always top the Best Games Ever charts, and yet, bizarrely, the N64 has been home to almost as many sequels and continuations of franchises as the PlayStation. Rare have been the only ones who have really established new franchises, but even they couldn't resist a *Donkey Kong* update.

I'm not criticising franchises at all. I want to play the next *Resident Evil*, *Zelda* and *Mario*. But at the same time I am desperate to play new games, with new ideas and concepts.

The developers out there working on a half-hearted FPS or another football game may find that when launch date arrives, the punters are into something new. Sure, innovation is risky, but Sega are leading us into a new generation where creativity and new ideas rule. And where *FIFA* is a name in a videogame history book.

Anyone arguing that the Dreamcast isn't home to innovative software is invited to take a look at *Seaman*.

Nathan Baseley, via email

Every innovation Sega successfully engineers is celebrated within these pages, but, in an ironic twist, it would appear that the mass market simply is not yet ready to look beyond what it knows. If some PlayStation owners struggle to program a VCR, imagine how baffled they'd be by *Seaman*.

I read the interview with Mr Miyamoto in **E**90 with great interest. He is (of course) an inspiring man, and a living legend.

I am, however, troubled by Nintendo's insistence to continue marketing their consoles as toys. The Famicom was short for Family Computer and he used almost the same words to describe their vision of the GameCube.

Someone needs to quietly tell Nintendo that change is required. If they are not to be seen as arrogant (a title which Sony appear to be greedily hanging onto at the moment) then they need to recognise that the children who played *Mario* in the '80s now have mortgages and careers.

Yes, we are still amazed by *Mario* and *Zelda*, and yes we enjoy the escapism of being reminded of our childhoods. But we also like *Perfect Dark* and *Resident Evil*.

If they are to convince a new market to buy into GameCube then they need to continue with what they are best at (making great games and consoles), but look outside for marketing muscle.

Vladimir Imp, via email

But consider this: which age group is Nintendo's merchandise-spawning, all-conquering, bank-rolling Pokémon phenomenon aimed at?

'Something strange is happening in camp Sega. Has anyone else noticed that the majority of big titles are not sequels to old franchises?'



Vladimir Imp believes Nintendo's focus on serving the desires of younger gamers spells out a grim message to the 20- and 30-something generation



Next month: hit or myth?
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